United States
Environmental Protection
Agency

March 2000

Pesticides And Toxic Substances (H-7506C)

Protecting Endangered Species

Interim Measures for Use of Pesticides in San Bernardino County

The federal Endangered Species Act is intended to protect and promote the recovery of animals and plants that are in danger of becoming extinct due to human activities. Under the Act, the U.S. Environmental Protection Agency (U.S. EPA) must ensure that the use of pesticides it registers will not result in harm to the species listed as endangered or threatened by the U.S. Fish and Wildlife Service, or to habitat critical to those species' survival. This program will protect endangered and threatened species from harm due to pesticide use.

The information provided in this bulletin is similar to what U.S. EPA expects to distribute once the Endangered Species Protection Program is in effect. Individuals who use pesticides during this interim period are not legally required to comply with these suggested measures. At the present time, compliance with the requirements specified on the pesticide product labeling will satisfy all legal requirements regarding pesticides and endangered species protection. While these pesticide use conditions do not yet have the force of law, they are being provided now for your use in voluntarily protecting endangered and threatened species.

Your comments are needed regarding the information presented in this publication. Please contact us to let us know whether the information is clear and correct. Also tell us to what extent following the recommended measures would affect your pesticide use program. This information will be considered by U.S. EPA during the final stages of program development.

Please submit comments to:
DPR Pesticide Registration Branch
830 K Street
Sacramento, CA 95814
(916) 324-3881
rmarovich@cdpr.ca.gov
http://www/cdpr.ca.gov/docs/es/index.htm

About This Publication

This publication contains a map of the county including a shaded area where pesticide use should be limited to protect listed species. In the Section List, you will find additional information on the individual species that occur in each section, indexed by county, township, range and section.

The Species Descriptions table lists the taxonomic groups for each species. The Active Ingredients tables list certain pesticides and the activity category (mode of action, etc.) of the pesticide and the taxonomic groups they could adversely affect. The use limitations in this bulletin apply only to listed pesticides where the hazard class of the pesticide matches the hazard class (sensitivity of the taxonomic group) of the species that occur in the section where the pesticide will be used. Within a given section, use limitations only apply to sites that are consistent with habitat as noted in the Species Descriptions table. The Use Limitation Codes table indicates which use limitation codes apply to each species. The Use Limitations table translates limitation codes to use limitations.

Does This Information Apply To You?

To determine whether this information applies to your use of a pesticide, review the questions below. The information applies only if you answer "yes" to all three of these questions:

- Do you intend to use pesticides within the shaded area on the map (p 3) that is further detailed in the Section List (p 49)? If so, note the species from the Section List.
- Are any of the ingredients included in your pesticide product named in the Active Ingredients tables (p 15, 22, 26, 29, 32)?
- If so, does the hazard class(es) of the pesticide you intend to use match one or more of the taxonomic groups of the species as shown in the Species Descriptions table (p 39)?

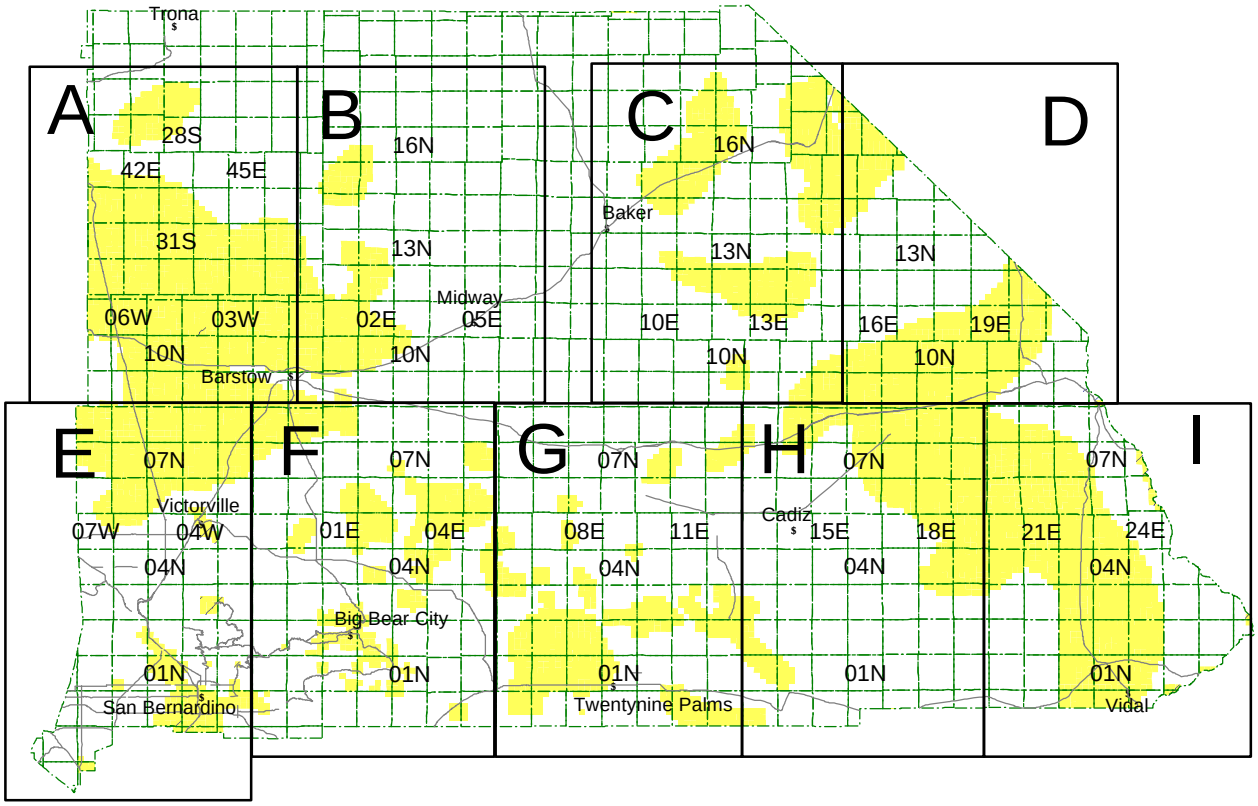
If you answer "yes" to all three questions, you should follow the instructions on "How to Use This Information" (p 2) to help protect listed species.

If you answer "no" to any of the above questions, this bulletin does not apply to you.

How to Use This Information

See worksheets for each class of pesticide that you intend to use:

Distribution of Species Addressed in This Bulletin

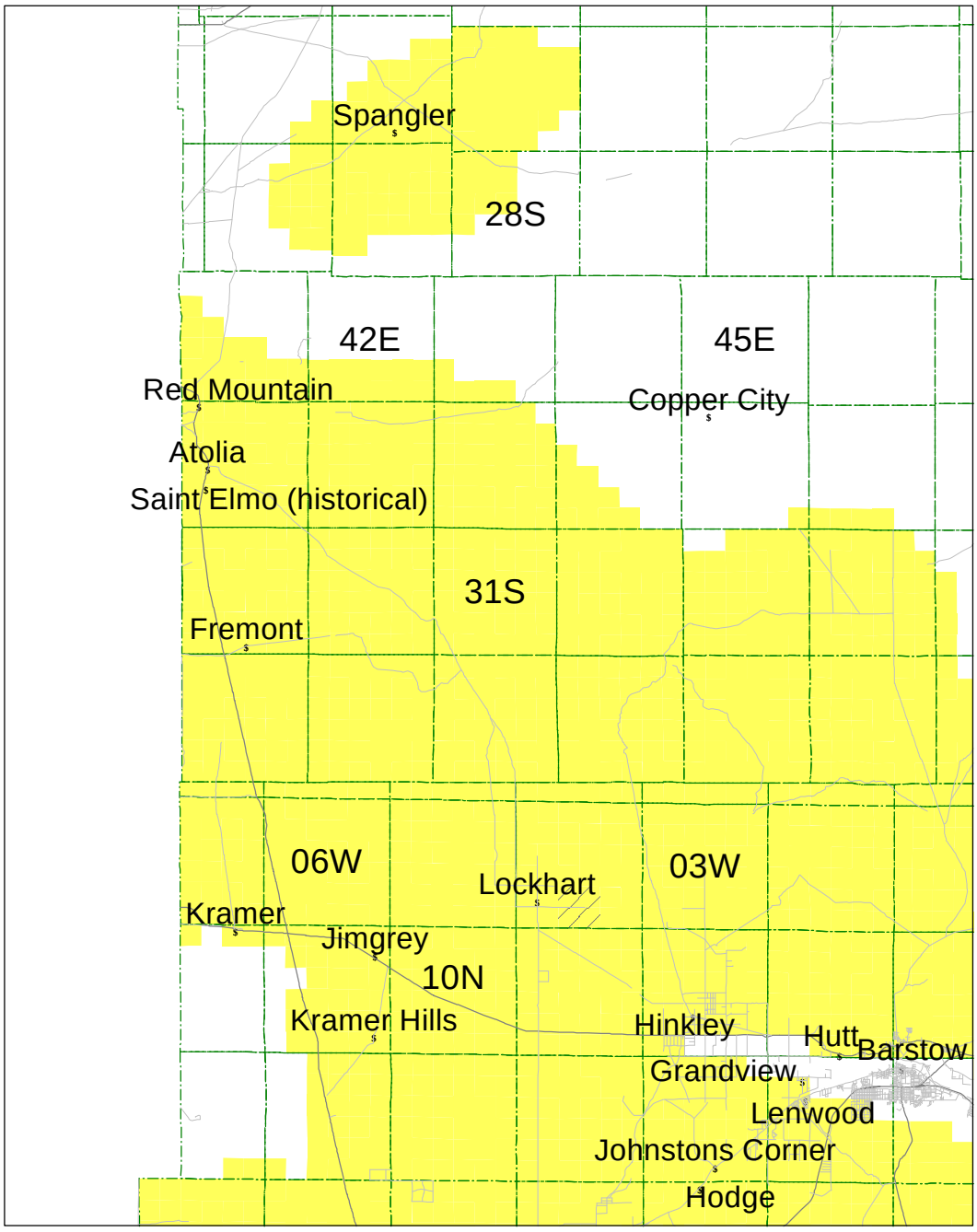


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Overview Map

Distribution of Species Addressed in This Bulletin

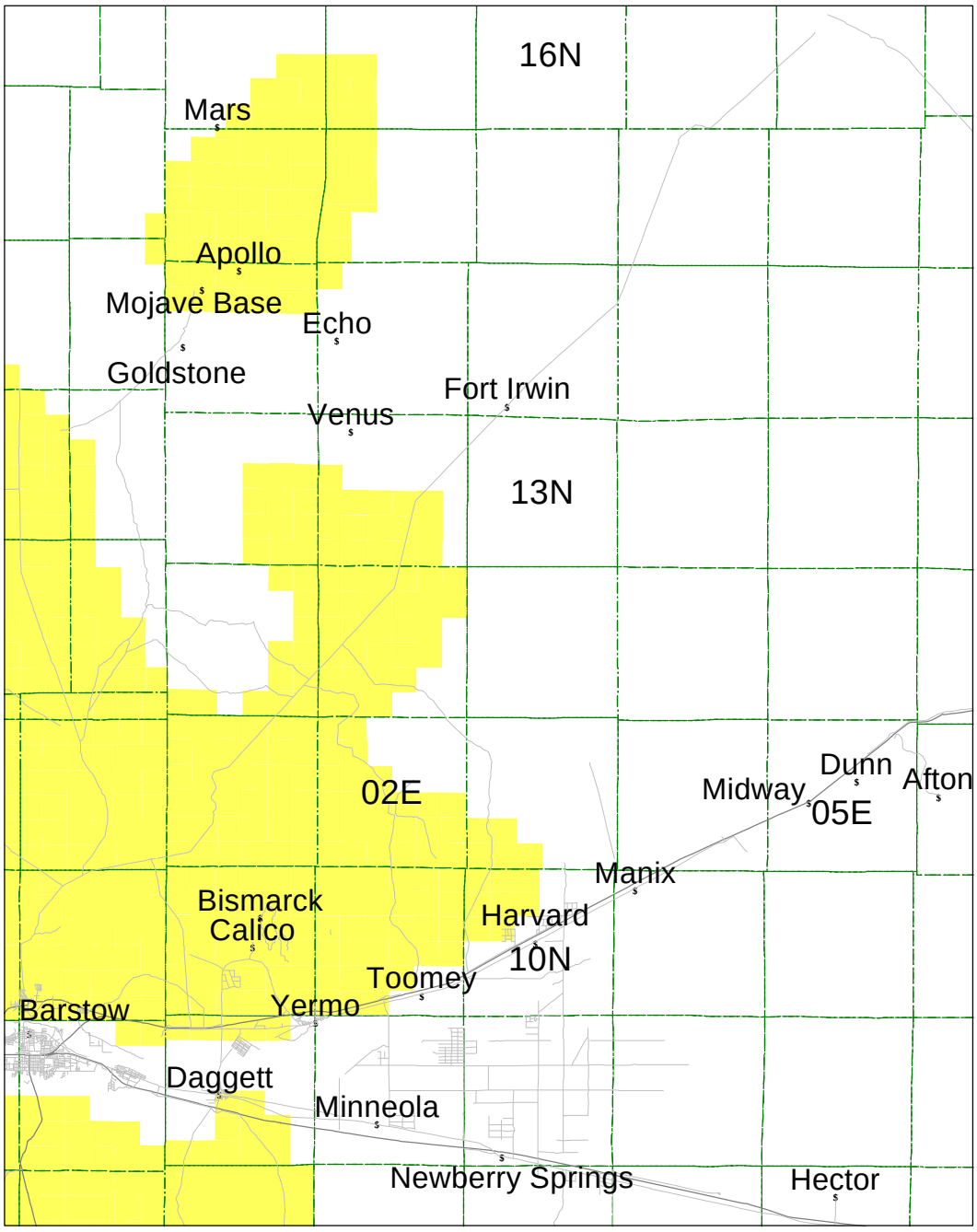


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map A

Distribution of Species Addressed in This Bulletin

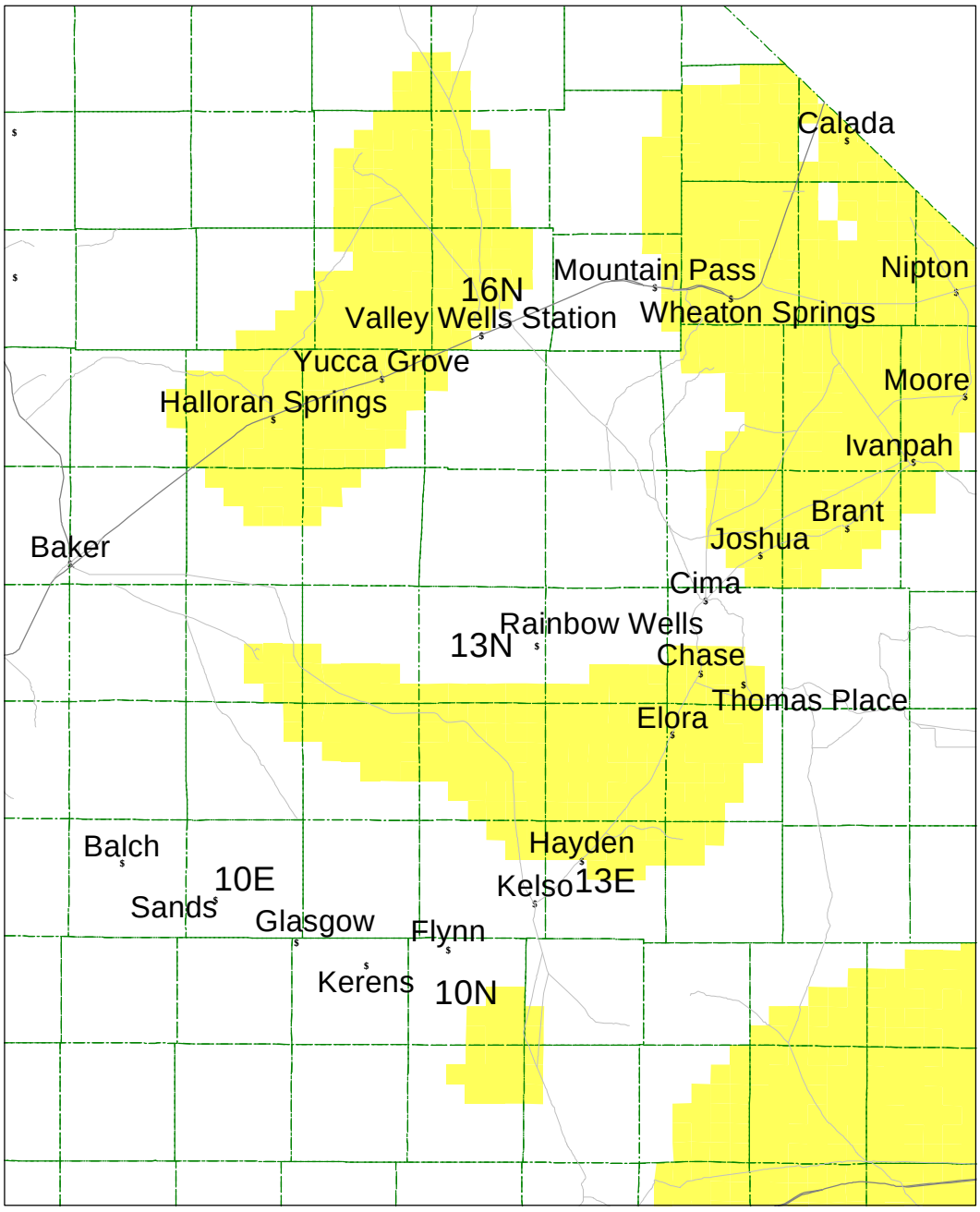


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map B

Distribution of Species Addressed in This Bulletin

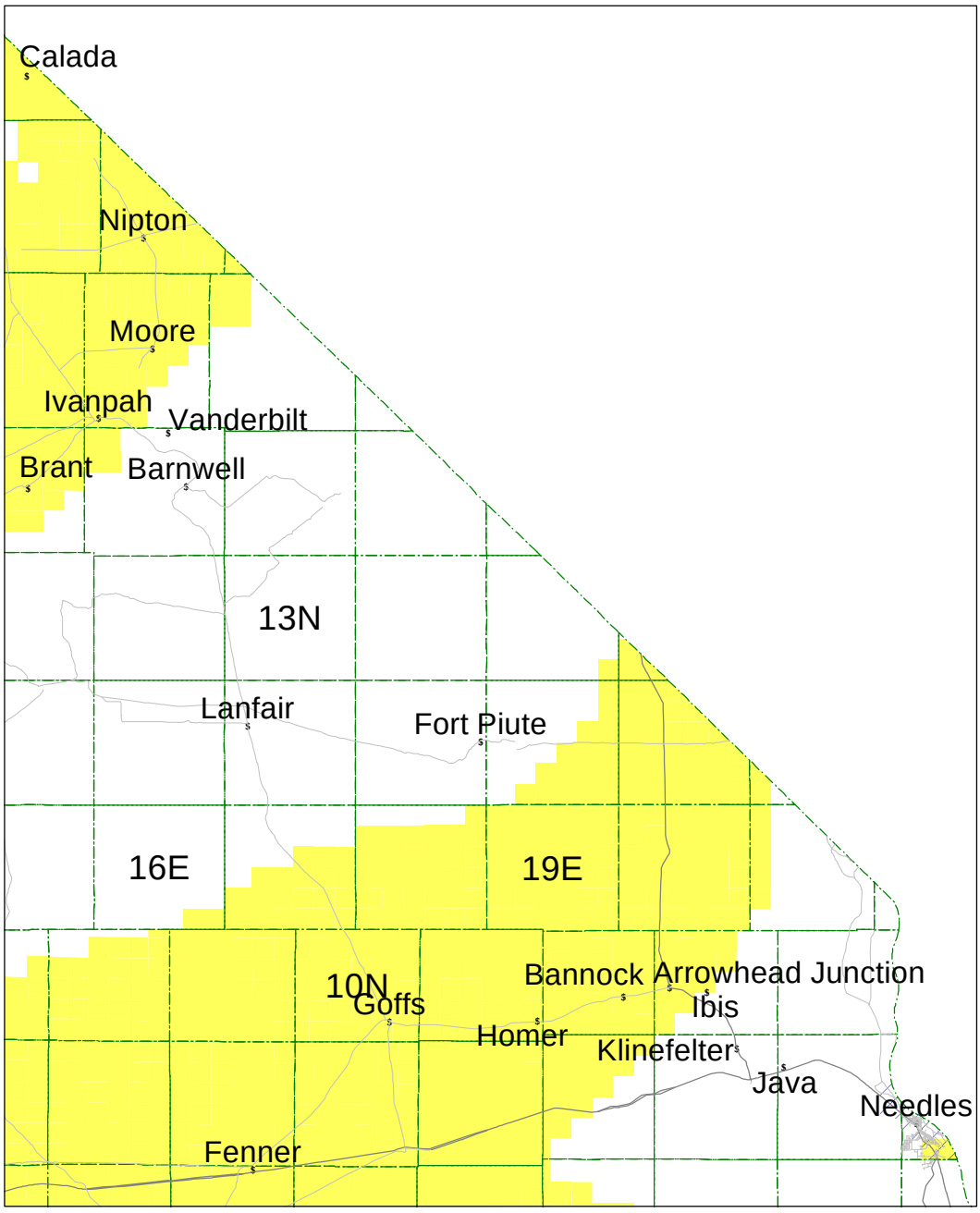


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map C

Distribution of Species Addressed in This Bulletin

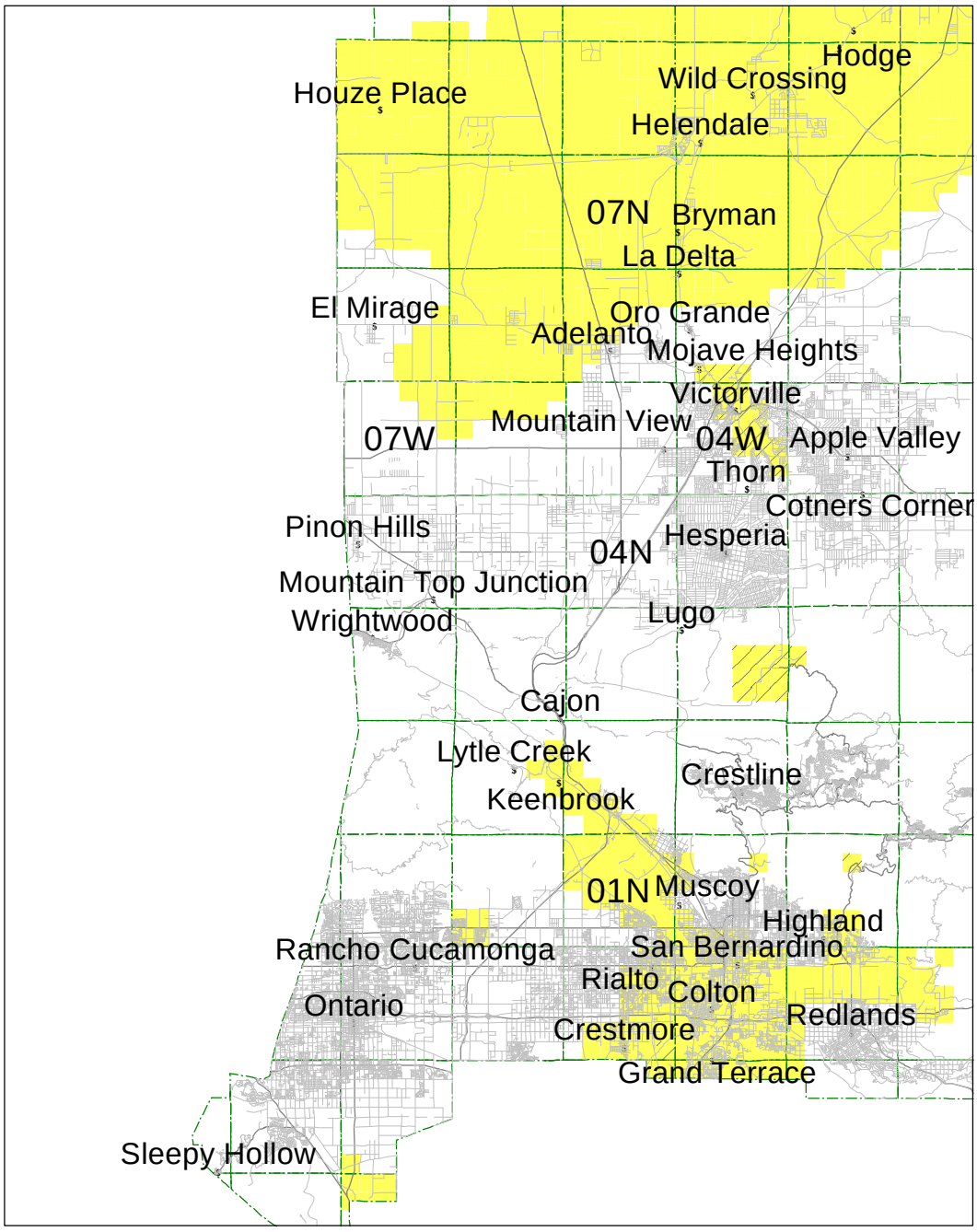


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map D

Distribution of Species Addressed in This Bulletin

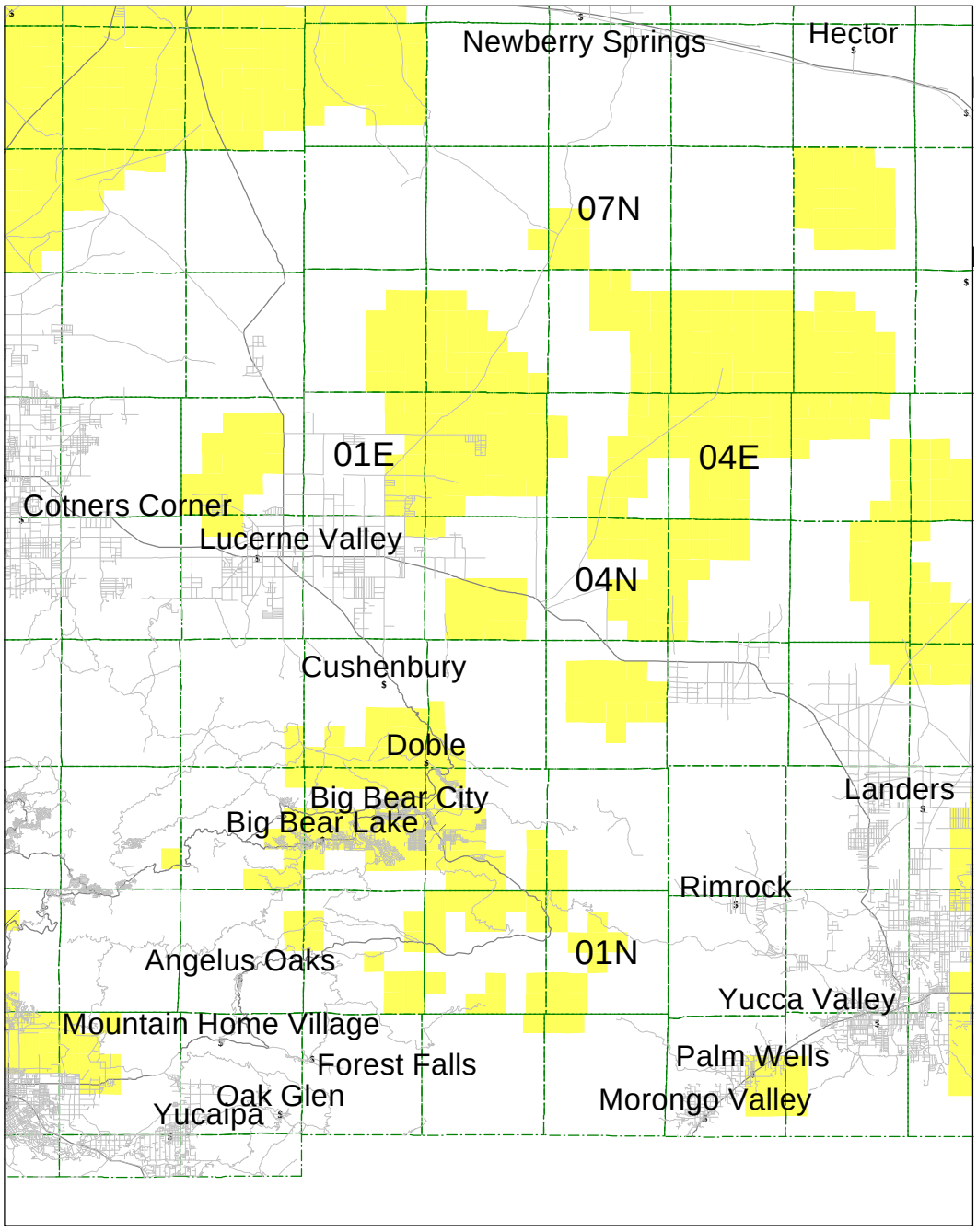


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map E

Distribution of Species Addressed in This Bulletin

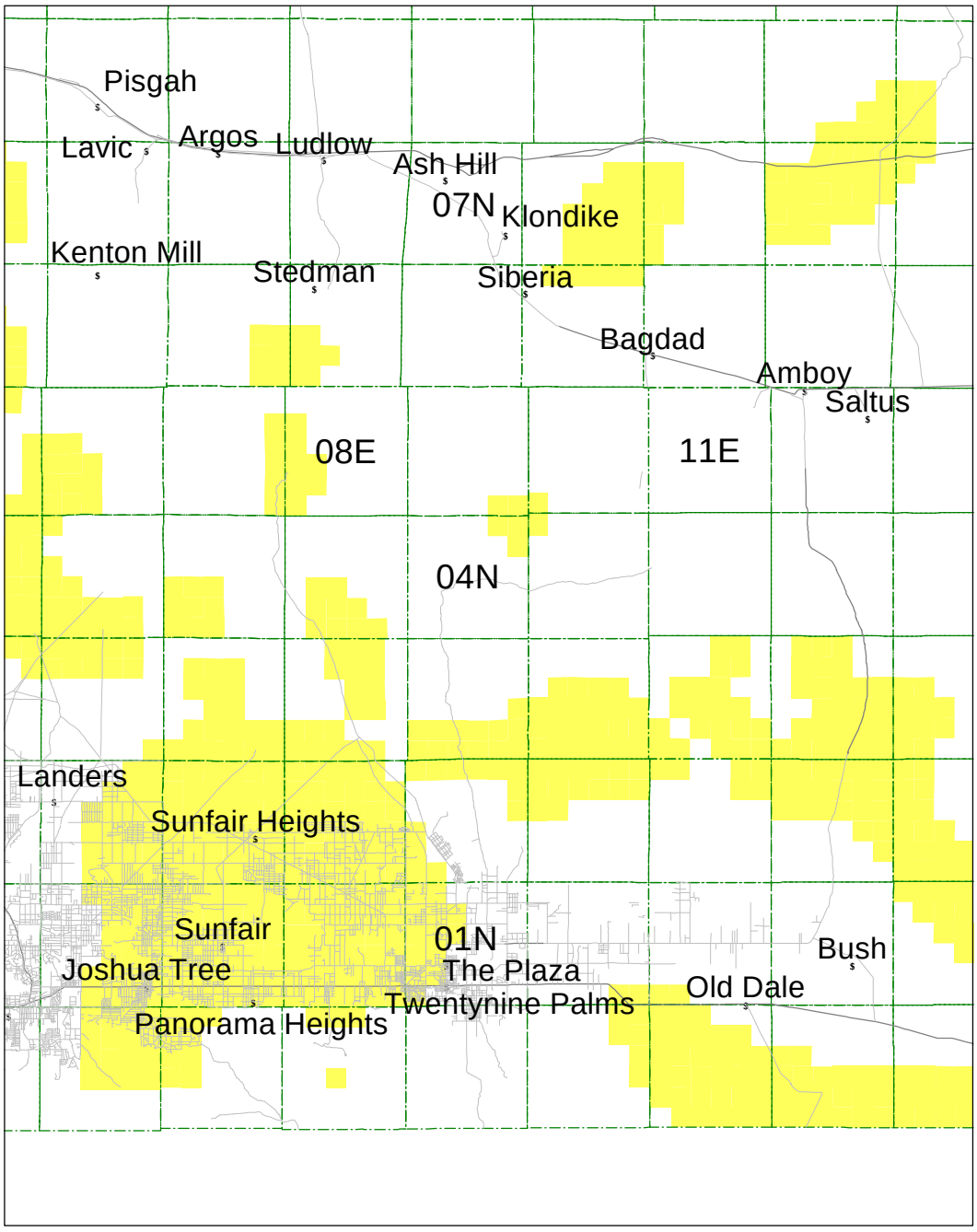


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map F

Distribution of Species Addressed in This Bulletin

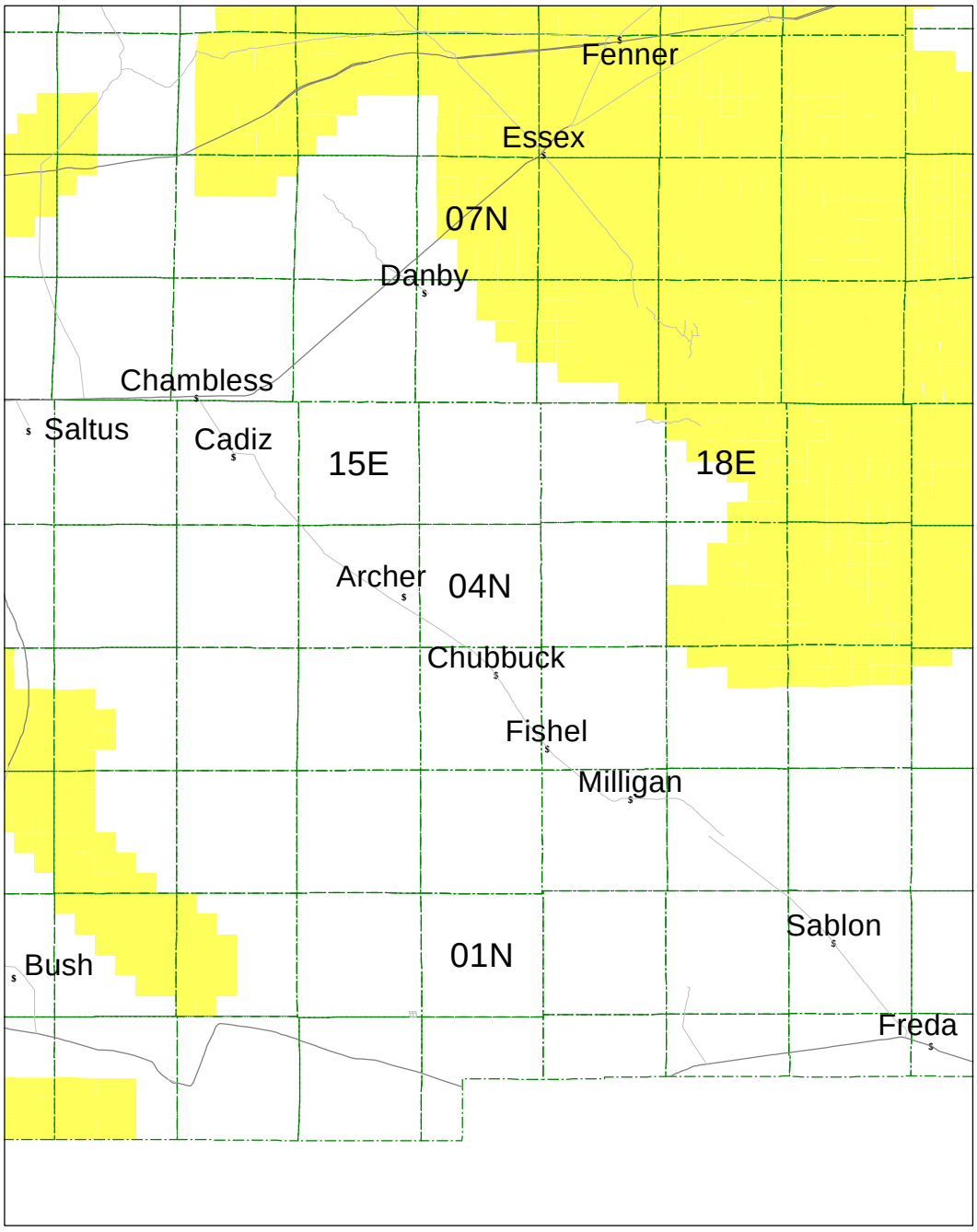


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map G

Distribution of Species Addressed in This Bulletin

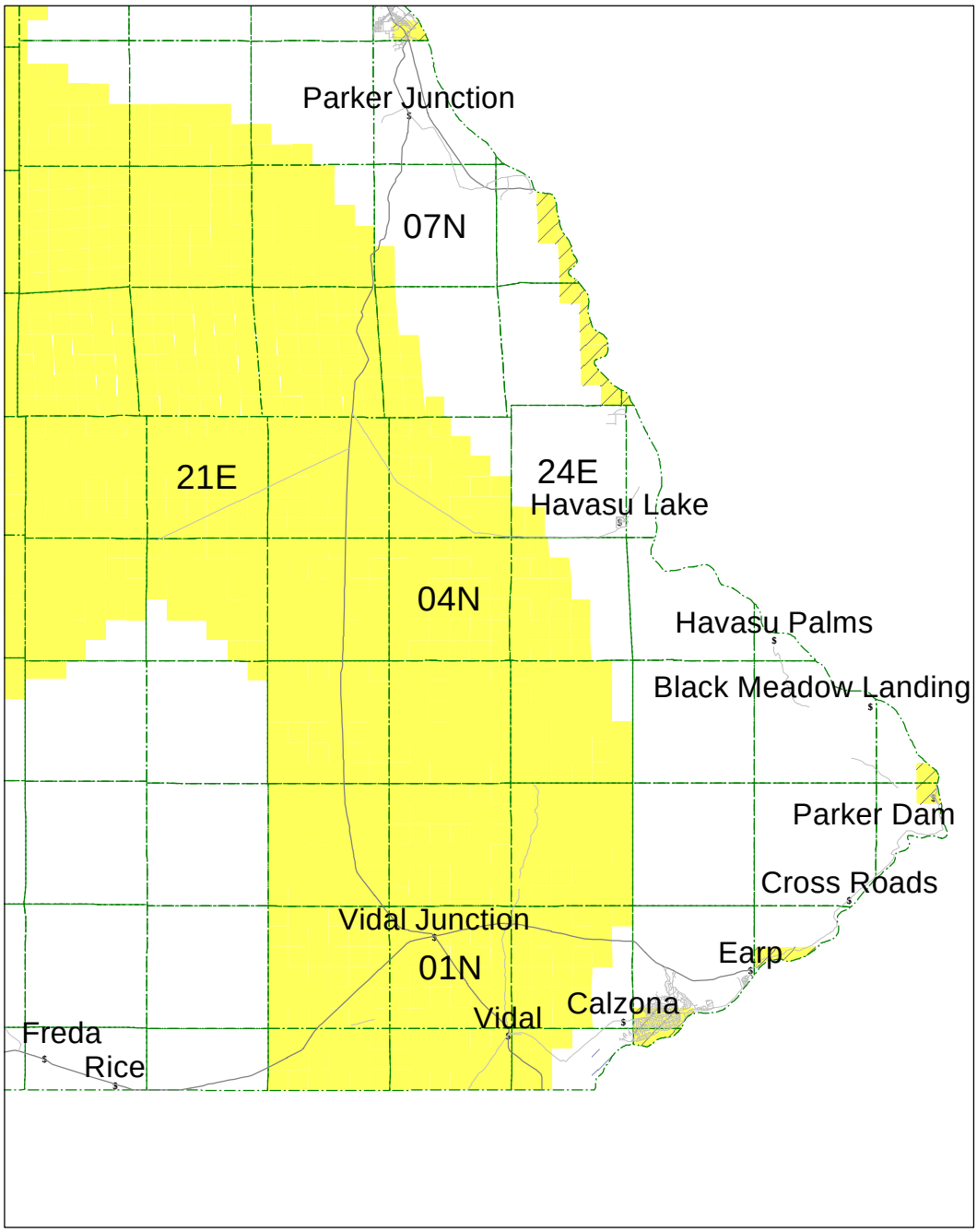


Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map H

Distribution of Species Addressed in This Bulletin



Terrestrial Species

Aquatic Species (restrictions apply only to aquatic habitats and flowing waters within species distribution- refer to the habitat descriptors in the bulletin for further information)

Detail Map I

Worksheet for Herbicides

For each section where you will apply herbicides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes ( ) No ( )
   (if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)

2. Is the section listed in the Section List (p 49)? Yes ( ) No ( )
   (if yes, go on to #3, if no, this bulletin does not apply)

3. Is the active ingredient of the herbicide(s) you intend to use listed in the Active Ingredients table (p 10-13)?
   (if yes, go on to #4, if no, this bulletin does not apply) Yes ( ) No ( )

4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

herbicide active ingredient(s) (list each)	Hazard Class (check all that apply)			Activity Category (check one)				
	AQ	PD	PM	a	b	c	d	e
_____	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 39) and check all that apply.

AQ	PD	PM
( )	( )	( )

6. Does one or more hazard class(es) of the herbicide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes ( ) No ( )

7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each pesticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

11 ( ) 15 ( ) 16 ( ) 17 ( ) 19 ( )

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 34). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (p 39) for each species.

Active Ingredients Tables

Active ingredients of pesticides covered by this bulletin are listed in separate tables on the following pages by classification as herbicides, insecticides, fungicides or rodenticides. The active ingredients table for each pesticide class specifies the activity category of each active ingredient and one or more hazard classes that are subsequently used to determine appropriate pesticide use limitations.

Herbicide Exposure Categories

Herbicides are grouped by activity categories (a-e) that broadly define mode of action and use patterns that in turn determine potential routes of exposure to listed species. The activity category of an herbicide is the exposure component that is used with the hazard class of the pesticide and the taxonomic group of the species to define which pesticide use limitations (if any) to apply.

Activity Category	Description
a	Broad spectrum foliar active herbicides with systemic or contact activity and without pre-emergent or residual soil activity.
b	Herbicides with foliar activity on broadleaved plants (dicots) only.
c	Herbicides with foliar activity on grasses (monocots) only.
d	Broad spectrum herbicides with residual soil activity.
e	Broad spectrum, seedling stage, pre-emergent herbicides.

Active Ingredients (Herbicides)

Active Ingredients	Activity Category	Hazard Class		
			Plants	
		Aquatic Animals (AQ)	Dicot (PD)	Monocot* (PM)
2,4-D	b		X	
2,4-D, butoxyethanol ester	b	X	X	
2,4-D, dimethylamine salt	b		X	
2-(2,4-DP), dimethylamine salt	b		X	
4(2,4-DB), dimethylamine salt	b		X	
alachlor	d		X	X
atrazine	d		X	X
benefin	e	X	X	X
bensulfuron methyl	d		X	X
bensulide	d		X	X
bentazon, sodium salt	a		X	X
bromacil	d		X	X
bromoxynil	a	X	X	X
butylate	d		X	X
cacodylic acid	a		X	X
carfentrazon-ethyl	a		X	X
chlorsulfuron	d		X	
chlorthal-dimethyl	e		X	X
clethodim	c			X
clopyralid	b		X	
copper	a	X		
copper ethanolamine complex	a	X		

* and gymnosperms

Active Ingredients (Herbicides)

Active Ingredients	Activity Category	Hazard Class		
			Plants	
		Aquatic Animals	Dicot	Monocot*
copper sulfate (basic)	a	X		
copper sulfate pentahydrate	a	X		
cyanazine	d		X	X
cycloate	d		X	X
desmedipham	e		X	X
dicamba, dimethylamine salt	b		X	
dichlobenil	d		X	X
diclofop-methyl	c	X		X
difenzoquat methyl sulfate	a			X
diquat dibromide	a		X	X
dithiopyr	d	X	X	X
diuron	d		X	X
endothall, dipotassium salt	d		X	X
endothall, mono [N,N-dimethyl alkylamine] salt	d		X	X
EPTC	d		X	X
ethafluralin	e	X	X	X
ethofumesate	d		X	X
fenoxaprop	c			X
fluazifop-butyl	c			X
glufosinate	a		X	X
halosulfuron	d		X	X
imazethapyr	d		X	X
isoxaben	d		X	X

* and gymnosperms

Active Ingredients (Herbicides)

Active Ingredients	Activity Category	Hazard Class		
			Plants	
		Aquatic Animals (AQ)	Dicot (PD)	Monocot* (PM)
glyphosate, isopropylamine salt	a		X	X
glyphosate, monoammonium salt	a		X	X
hexazinone	d		X	X
imazapyr	d		X	X
linuron	d		X	X
MCPA, dimethylamine salt	b		X	
MCPP, dimethylamine salt	b		X	
metalochlor	d		X	X
metam-sodium	d	X	X	X
metribuzin	d		X	X
molinate	d		X	X
MSMA	a		X	X
napropamide	d		X	X
nicosulfuron	a		X	X
nonanoic acid	a		X	X
norflurazon	d		X	X
oryzalin	e		X	X
oxadiazon	e	X	X	X
oxyfluorfen	e	X	X	X
paraquat dichloride	a		X	X
pebulate	e		X	X

* and gymnosperms

Active Ingredients (Herbicides)

Active Ingredients	Activity Category	Hazard Class		
			Plants	
		Aquatic Animals (AQ)	Dicot (PD)	Monocot* (PM)
pendimethalin	e	X	X	X
petroleum hydrocarbons	a		X	X
petroleum oil, unclassified	a		X	X
phenmedipham	b		X	
prometon	d		X	X
prometryn	d		X	
pronamide	d		X	X
propanil	a		X	X
pyrazon	d		X	X
pyrithiobac	b		X	
rimsulfuron	d		X	X
sethoxydim	c			X
simazine	d		X	X
sulfometuron, methyl	d		X	X
tebuthiuron	d		X	X
thiazopyr	d		X	X
thiobencarb	a		X	X
triclopyr, butoxyethyl ester	b	X	X	
triclopyr, triethylamine salt	b		X	
trifluralin	e	X	X	X

* and gymnosperms

Limitation Codes (Herbicides)

The following table identifies use limitation codes for each combination of hazard class (AQ, PM or PD) and herbicide activity category (a-e). Use the hazard class row(s) that corresponds with both (1) the pesticide (from the Active Ingredients table) and (2) the hazard class (taxonomic group) of the species in the section to be treated (as found in the Species Descriptions table) and the activity category column(s) that corresponds with the herbicide(s) you intend to use. If either (1) the hazard class (taxonomic group) of one or more species does not match at least one of the hazard class(es) of the herbicide you intend to use or (2) if the combination of activity category and hazard class results in a double dash (- -), then no use limitations apply. Note all applicable codes (11-19). These codes are translated in the Use Limitations table (p 34)

Hazard Class	Herbicide Activity Category				
	a	b	c	d	e
AQ	11, 17	11, 17	11, 17	11, 15, 16, 17	11, 17
PM	11, 17	- -	11, 17	11, 16, 17, 19	11
PD	11, 17	11, 17	- -	11, 16, 17, 19	11

Worksheet for Insecticides

For each section where you will apply insecticides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes ( ) No ( )
   (if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)

2. Is the section listed in the Section List (p 49)? Yes ( ) No ( )
   (if yes, go on to #3, if no, this bulletin does not apply)

3. Is the active ingredient of the insecticide(s) you intend to use listed in the Active Ingredients table (p 17-18)?
   (if yes, go on to #4, if no, this bulletin does not apply) Yes ( ) No ( )

4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

insecticide active ingredient(s) (list each)	Hazard Class (check all that apply)				Activity Category
	AQ	AV	IN	PD	i
_____	( )	( )	( )	( )	(x)
_____	( )	( )	( )	( )	(x)
_____	( )	( )	( )	( )	(x)
_____	( )	( )	( )	( )	(x)
_____	( )	( )	( )	( )	(x)

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 39) and check all that apply.

AQ	AV	IN	PD
( )	( )	( )	( )

6. Does one or more toxicity class of the insecticide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes ( ) No ( )

7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each insecticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

10 ( ) 15 ( ) 16 ( ) 17 ( )

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 34).
   If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (p 39) for each species.

Activity Categories of Insecticides

There is currently only one activity category for insecticides.

Activity Category	Description
i	Insecticides applied by any method

Active Ingredients (Insecticides)

Active Ingredients	Activity Category	Hazard Class			
		Aquatic (AQ)	Avian (AV)	Insects (IN)	Plants-Dicot* (PD)
acephate	i			X	X
aldicarb	i	X	X		
amitraz	i	X		X	
avermectin	i	X		X	X
azinphos-methyl	i	X	X	X	X
Bacillus thuringiensis	i			X**	
bendiocarb	i	X	X	X	X
bifenthrin	i	X		X	X
buprofezin	i	X		X	X
carbaryl	i	X		X	X***
carbofuran	i	X	X	X	X
carbophenothion	i	X	X	X	X
chlorfenapyr	i	X		X	X
chlorpyrifos	i	X	X	X	X
cyfluthrin	i	X		X	X
cypermethrin	i	X		X	X
cyromazine `	i			X	X
diazinon	i	X	X	X	X
dicofol	i	X	X	X	X
dicrotophos	i	X	X	X	X
diflubenzuron	i	X	X	X	
disulfoton	i	X	X	X	X
endosulfan	i	X	X	X	X
esfenvalerate	i	X		X	X
ethion	i	X		X	
ethoprop	i	X	X	X	X
fenitrothion	i	X	X	X	X

* Non-granular formulations, only when in bloom, to avoid possible adverse impacts on pollination.
** Different strains of Bacillus thuringiensis are selective for different insects. Most strains target Lepidopterous pests only. See your county agricultural commissioner for details.
*** Except XLR formulation.

Active Ingredients (Insecticides)

Active Ingredients	Activity Category	Hazard Class			
		Aquatic (AQ)	Avian (AV)	Insects (IN)	Plants-Dicot* (PD)
fenpropathrin	i	X		X	X
fenthion (livestock use)	i	X	X		
fenvalerate	i	X		X	X
fluvalinate	i	X		X	X
fonofos	i	X	X	X	X
imidacloprid	i			X	X
malathion	i	X		X	X
methamidophos	i		X	X	X
methidathion	i	X	X	X	X
methiocarb	i		X		X
methomyl	i	X	X	X	X
methyl parathion	i	X	X	X	X
mevinphos	i	X	X		X
naled	i	X		X	X
oxamyl	i	X	X	X	X
oxydemeton-methyl	i	X	X	X	X
parathion	i	X	X	X	X
permethrin	i	X		X	X
phorate	i	X	X	X	X
phosmet	i	X		X	X
profenphos	i	X		X	X
propargite	i	X		X	
pyrethrin	i	X		X	X
pyriproxyfen	i	X		X	
spinosad	i			X	X
tebufenozide	i	X		X	X
temephos	i	X	X	X	X
terbufos	i	X	X	X	X
thiodicarb (1)	i	X		X	X
tralomethrin (1)	i	X		X	X
trichlorfon (2)	i	X		X	

Use Limitation Codes for Insecticides

The following table identifies use limitation codes for each combination of toxicity class (AQ, AV or IN) and activity category (i). Use the hazard class row that corresponds with the taxonomic group(s) of species in the section to be treated. Note all applicable codes (11-17). The double dash (- -) indicates that no use limitations apply. These codes are translated in the Use Limitations table (p 34).

Hazard Class	Insecticide Activity Category
	i
AQ	10, 15, 16, 17
AV	10, 17
IN	10, 17
PD	10

Worksheet for Fungicides

For each section where you will apply fungicides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes ( ) No ( )
   (if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)

2. Is the section listed in the Section List (p 49)? Yes ( ) No ( )
   (if yes, go on to #3, if no, this bulletin does not apply)

3. Is the active ingredient of the fungicide(s) you intend to use listed in the Active Ingredients table (p 21)?
   (if yes, go on to #4, if no, this bulletin does not apply) Yes ( ) No ( )

4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

fungicide active ingredient(s) (list each)	Hazard Class	Activity Category
	AQ	f
_____	(x)	(x)
_____	(x)	(x)
_____	(x)	(x)
_____	(x)	(x)
_____	(x)	(x)

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 39) and check all that apply.

AQ
(x)

6. Does one or more hazard class of the fungicide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes ( ) No ( )

7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each fungicide that you intend to use and check all use limitation codes that apply.

Limitation Codes

10 (x)	15 (x)	16 (x)	17 (x)

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 34). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions (p 39) table for each species.

Active Ingredients (Fungicides)

Active Ingredients	Activity Category	Hazard Class
		Aquatic (AQ)
Azoxystrobin	f	X
Benomyl	f	X
Captan	f	X
Carboxin	f	X
Chlorothalonil	f	X
Copper	f	X
Copper Ammonium Carbonate	f	X
Copper Ammonium Complex	f	X
Copper Hydroxide	f	X
Copper Octanoate	f	X
Copper Oxychloride	f	X
Copper Oxychloride Sulfate	f	X
Copper Salts of Fatty and Rosin Acids	f	X
Copper Sulfate (Basic)	f	X
Copper Sulfate (Pentahydrate)	f	X
Dazomet	f	X
Difenoconazole	f	X
Dimethomorph	f	X
Fenbuconazole	f	X
Fludioxonil	f	X
Mancozeb	f	X
Maneb	f	X
Manganese Sulfate	f	X
Oxythioquinox	f	X
PCNB	f	X
Piperalin	f	X
Propiconazole	f	X
Tebuconazole	f	X
Thiabendazole	f	X
Thiram	f	X
Triflumizole	f	X
Ziram	f	X
Zineb	f	X

Use Limitation Codes for Fungicides

The following table identifies use limitation codes for the hazard class (AQ) and fungicide activity category (f). Note all applicable codes (10-17). These codes are translated on page 34.

Hazard Class	Fungicide Activity Category
	f
AQ	10, 15, 16, 17

Worksheet for Grain Bait Rodenticides

For each section where you will apply grain bait rodenticides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes ( ) No ( )
   (if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)

2. Is the section listed in the Section List (p 49)? Yes ( ) No ( )
   (if yes, go on to #3, if no, this bulletin does not apply)

3. Is the active ingredient of the pesticide(s) you intend to use listed in the Active Ingredients table (p 24)?
   (if yes, go on to #4, if no, this bulletin does not apply) Yes ( ) No ( )

4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

Rodenticide active ingredient(s) (list each)	Hazard Class							Activity Category		
	BB	CB	GB	HM	KF	KR	LH	g	h	k
_____	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
_____	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 39) and check all that apply.

BB	CB	GB	HM	KF	KR	LH
( )	( )	( )	( )	( )	( )	( )

6. Does one or more hazard class of the pesticide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes ( ) No ( )

7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each pesticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

1A ( )	1B ( )	1C ( )	1D ( )	2 ( )	3 ( )
4 ( )	7 ( )	8 ( )	33 ( )	34 ( )	

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 34). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (page 39) for each species.

Active Ingredients (Rodenticides)

Active Ingredients	Activity Category	Hazard Class						
		Bait Box (BB)	Carni-vorous Birds (CB)	Grani-vorous Birds (GB)	Salt Marsh Harvest Mouse (HM)	Kit Fox (KF)	Kangaroo Rats (KR)	Very Limited Habitat (LH)
Brodifacoum	k	X	X	X	X	X	X	X
Bromadiolone	k	X	X	X	X	X	X	X
Bromethalin	k	X	X	X	X	X	X	X
Chlorophacinone	g	X	X	X	X	X	X	X
Difenacoum	k	X	X	X	X	X	X	X
Difethialone	k	X	X	X	X	X	X	X
Diphacinone	g	X	X	X	X	X	X	X
Pival	k	X	X	X	X	X	X	X
Vitamin D3	k	X	X	X	X	X	X	X
Warfarin	k	X	X	X	X	X	X	X
Zinc Phosphide	h	X	X	X	X	X	X	X

Activity Categories of Grain Bait Rodenticides

Activity Category	Description
g	Field use chronic toxicant grain bait
h	Field use acute toxicant grain bait
k	Structural use rodenticide

Use Limitation Codes for Rodenticide Grain Baits

The following table identifies use limitation codes for each combination of hazard class (BB, CB, etc.) and rodenticide activity category (g-k). Use the row(s) that corresponds with the hazard class (taxonomic group) of the species in the section to be treated and the rodenticide activity column(s) that corresponds with the rodenticide(s) you intend to use. Note all applicable codes (1-34). The double dash (- -) indicates that no use limitations apply. These codes are translated in the Use Limitations table (p 34)

Hazard Class	Rodenticide Grain Bait Activity Category		
	g	**h**	**k**
BB	7	7	7
CB	1D	- -	7
GB	1B, 1C	1B, 1C	7
HM	7 or 34	7 or 34	7
KF	1, 2, 3, 4	3	7
KR	8	8	7
LH	33	33	33

Worksheet for Fumigant Rodenticides

For each section where you will apply fumigant rodenticides:

1. Is the section inside of the shaded area on the county map (p 3)? Yes ( ) No ( )
   (if yes, or if you are unsure go on to #2, if no, this bulletin does not apply)

2. Is the section listed in the Section List (p 49)? Yes ( ) No ( )
   (if yes, go on to #3, if no, this bulletin does not apply)

3. Is the active ingredient of the pesticide(s) you intend to use listed in the Active Ingredients table (p 27)?
   (if yes, go on to #4, if no, this bulletin does not apply) Yes ( ) No ( )

4. For each active ingredient, note the hazard class and activity category (from the Active Ingredients table).

Rodenticide active ingredient(s) (list each)	Hazard Class					Activity Category
	S1	S2	LH	WW	FS	j
_____	(x)	(x)	(x)	(x)	(x)	(x)
_____	(x)	(x)	(x)	(x)	(x)	(x)
_____	(x)	(x)	(x)	(x)	(x)	(x)
_____	(x)	(x)	(x)	(x)	(x)	(x)
_____	(x)	(x)	(x)	(x)	(x)	(x)

5. For each species in the section to be treated, look up the hazard class (taxonomic group) in the Species Descriptions table (p 39) and check all that apply.

S1	S2	LH	WW	FS
( )	( )	( )	( )	( )

6. Does one or more hazard class of the pesticide(s) from #4 match the hazard class (taxonomic group) for any of the species from #5? (if yes to any, go on to #7, if no, this bulletin does not apply) Yes ( ) No ( )

7. Look up the use limitation codes by hazard class and activity category in the Use Limitation Codes table in this section for each pesticide that you intend to use and check all use limitation codes that apply.

Limitation Codes

5 ( ) 30 ( ) 31 ( ) 32 ( ) 33 ( )

8. Follow the use limitations corresponding to each code as shown in the Use Limitations table (p 34). If more than one code applies and there is a conflict, follow the most restrictive limitation. Note that use limits apply only to sites that that match or (where buffer zones apply) are adjacent to sites that match the habitat descriptions in the Species Descriptions table (p 39) for each species.

Active Ingredients (Rodenticides - Burrow Fumigants)

Active Ingredients	Activity Category	Hazard Class				
		Seasonal Limitation 1 (S1)	Seasonal Limitation 2 (S2)	Limited Habitat (LH)	Waterways (WW)	Fossorial (Burrowing) Species (FS)
Acrolein	j	X	X	X	X	X
Aluminum phosphide	j	X	X	X	X	X
Magnesium phosphide	j	X	X	X	X	X
Sodium Nitrate	j	X	X	X	X	X
Potassium Nitrate	j	X	X	X	X	X

Activity Categories of Burrow Fumigant Rodenticides

Activity Category	Description
j	Burrow Fumigants

Use Limitation Codes for Fumigant Rodenticides

The following table identifies use limitation codes for each combination of hazard class (S1, S2, etc.) and fumigant rodenticide activity category (j). Use the hazard class row(s) that corresponds with the hazard class of the species (taxonomic group) in the section to be treated and the herbicide activity column(s) that corresponds with the fumigant(s) you intend to use. Note all applicable codes (5-32). These codes are translated in the Use Limitations table (p 34).

Hazard Class	Fumigant Rodenticide Activity Category
	j
S1	31, 5
S2	32, 5
LH	33
WW	30
FS	5

Use Limitations

1A	**Bait station application**s: ***Formulation:*** The active ingredient shall not exceed 0.005% in the formulated bait.
1B	***Bait Station Design and Use:*** Bait stations shall be designed with an opening that prevents access to non-target species (not to exceed 3") and controls bait spillage by feeding rodents. See your county agricultural commissioner for recommended designs and suggestions to retrofit existing stations. Bait stations shall be secured (e.g. staked) upright to prevent tipping and access by non-target animals. Bait stations shall not be filled beyond design capacity and in no case shall bait stations be filled with more than 10 lbs of bait.
1C	***Station Monitoring:*** While treated baits are in use, bait stations shall be inspected for spillage, evidence of disturbance by non-target animals, excess moisture from irrigation systems, etc. Problems shall be corrected before baiting is resumed. Any spilled baits shall be promptly cleaned up (scattering limitied quantities of spilled bait in non-crop areas is acceptable if allowed by labeling). Bait stations shall be replenished with treated baits as needed to provide continuous exposure. After treated baits are accepted, as evidenced by consumption of baits, depletion of bait in the bait station shall be inspected at least weekly for depletion of bait and refilled until feeding ceases. Treated baits shall be promptly removed (or bait stations shall be sealed) from all stations after feeding has ceased. If subsequent baiting is needed, a two week period without use of treated baits shall be observed before baiting is resumed. This is to keep the period when treated bait is exposed to a minimum without jeopardizing good pest control.
1D	***Carcass Survey and Disposal:*** Carcass survey and disposal shall be performed in the treated area beginning on the third day following the initial exposure of toxic baits. Any exposed carcasses shall be disposed of (e.g., completely buried) in a manner inaccessible to wildlife. Carcass surveys shall continue for at least 5 days after toxic baiting has ceased and thereafter until no more carcasses are found. Carcasses should be handled with care to avoid contact with parasites such as fleas.
1E	***Pre-baiting (optional):*** Pre-baiting of bait stations with non-toxic (untreated) grains such as oats, oat groats or barley is optional, but may reduce the time period for carcass surveys. Pre-baiting will acclimate the pest species to feed in bait stations and should be continued until most of the target population is feeding from the stations. The period of toxic bait exposure may be shortened as will the period when pest carcasses may be exposed. The untreated grain need not be the same as the treated grain, but milo or cracked corn **should be strictly avoided** due to their attractiveness to birds.

Use Limitations

2A	**Broadcast (mechanical) and spot (hand) applications** ***Formulation:*** The active ingredient shall not exceed 0.01% in the formulated bait.
2B	***Test Baiting/Bait Acceptanc***e: Prior to the main application of toxic baits by spot or broadcast method, a small amount of the bait shall be applied to determine bait accep-tance Test baits shall be broadcast by the same method that will be used for control baiting.
2C	***Use of Treated Bait***s: Use of treated baits shall begin only when bait acceptance is confirmed by consumption of test baits. Piling of baits shall be avoided. No addi-tional applications shall be made whenever significant quantities of previously applied bait remain. Do not place baits directly into burrows. Do not exceed label application rates. **Spot Baiting** - Scatter a handful of bait (about 10 handfulls per pound) evenly over 40 to 50 square feet near active burrows or runways. Repeat every other day until feeding ceases. **Mechanical Spreader** - Apply at the rate of 10 pounds per swath acre through infested area. Follow with a second application in 2 to 3 days.
2D	***Carcass Survey and Disposal:*** See Limitation Code 1D.
3	Use of pelletized formulations for control of ground squirrels is prohibited, except in bait stations as described in Limitation Code 1 (A, B, C, E).
4	Jackrabbits may be controlled by using self-dispensing bait stations provided that: Bait acceptance is first determined. Carcasses are removed and stations are monitored as described in Limitation Codes 1C and 1D respectively. Baiting ceases when feeding stops. Baits are placed only where jackrabbits are active. Use of pelletized baits is prohibited.

Use Limitations

5	Use shall be supervised by a person (wildlife biologist, county agricultural commissioner, university extension advisor,state or federal official or others)who is trained to distinguish dens and burrows of target species from those of non-target species. Use shall occur only in the active burrows of target species. The person responsible for supervision shall be aware of the conditions at the site of application and be available to direct and control the manner in which applications are made (per Section 6406 of Title 3, California Code of Regulations). Contact your county agricultural commissioner for information on training.
7	For commensal rodent control, outdoor use must be in tamper resistant bait boxes placed in areas inaccessible to wildlife.
8	Use is prohibited EXCEPT under any ONE of the following conditions (in all cases where toxic baits are applied, any spilled baits shall be immediately removed or buried to prevent exposure to non-target species): For commensal rodent control, outdoor use must be in tamper resistant bait boxes placed in areas inaccessible to wildlife. An approved bait station (see yourcounty agricultural commissioner for approved designs) is used that is fitted with an entrance that provides selective access to pest species but does not allow access to kangaroo rats, OR Bait is placed only in bait stations that are elevated to preclude exposure to kangaroo rats, and designed to prevent spillage by rodents feeding (see your county agricultural commissioner for specifications), OR Baits are placed in bait stationsduring daylight hours only and are removed (or entrances are closed) by dusk each day, OR Broadcast application of baits is allowed in fields under active cultivation with the maintenance of a 10 yard wide border of untreated crops where fields are adjacent to areas of natural vegetation. For purposes of this provision, fields under active cultivation means fields that have been tilled within the last one year or that such fields are irrigated by furrow, flood or overlapping sprinkler method.
10	Do not use in currently occupied habitat (see Species Descriptions table for possible exceptions).

Use Limitations

Code	Limitation
11	Do not use in currently occupied habitat except: (1) as specified in Habitat Descriptors, (2) in organized habitat recovery programs, or (3) for selective control of invasive exotic plants.
15	Provide a 20 foot minimum strip of vegetation (on which pesticides should not be applied) along rivers, creeks, streams, wetlands, vernal pools and stock ponds or on the downhill side of fields where run-off could occur. Prepare land around fields to contain run-off by proper leveling, etc. Contain as much water "on-site" as possible. The planting of legumes, or other cover crops for several rows adjacent to off-target water sites is recommended. Mix pesticides in areas not prone to run-off such as concrete mixing/loading pads, disked soil in flat terrain or graveled mix pads, or use a suitable method to contain spills and/or rinsate. Properly empty and triple-rinse pesticide containers at time of use.
16	Conduct irrigations efficiently to prevent excessive loss of irrigation waters through run-off. Schedule irrigations and pesticide applications to maximize the interval of time between the pesticide application and the first subsequent irrigation. Allow at least 24 hours between application of pesticides listed in this bulletin and any irrigation that results in surface run-off into natural waters. Time applications to allow sprays to dry prior to rain or sprinkler irrigations. Do not make aerial applications while irrigation water is on the field unless surface run-off is contained for 72 hours following the application.
17	For sprayable or dust formulations: when the air is calm or moving away from habitat, commence applications on the side nearest the habitat and proceed away from the habitat. When air currents are moving toward habitat, do not make applications within 200 yards by air or 40 yards by ground upwind from occupied habitat. The county agricultural commissioner may reduce or waive buffer zones following a site inspection, if there is an adequate hedgerow, windbreak, riparian corridor or other physical barrier that substantially reduces the probability of drift.
19	Do not apply within 30 yards upslope of habitat unless a suitable method is used to contain or divert runoff waters.

Use Limitations

30	Use is prohibited within 500 feet of water courses at any time, EXCEPT a) in cultivated areas
31	Use is prohibited from October 1 through April 30, EXCEPT: a) in cultivated areas, or b) on the water side of water supply channels
32	Use is prohibited from July 1 through February 28, EXCEPT: a) in cultivated areas, or b) on the water side of water supply channels.
33	Use is prohibited EXCEPT with a prior site evaluation by the county agricultural commissioner in cooperation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service.
34	For commensal rodent control, outdoor use near salt marshes is limited to sites that are separated by at least 10 yards of barren (or clean cultivated) ground from pickleweed habitat or from the inland side of the levee. This buffer strip should be above the high tide line.

Species Descriptions

ARROYO TOAD

Photo: Bill Palmer

Scientific Name: *BUFO MICROSCAPHUS CALIFORNICUS*

Federal Status: Endangered

Species Description:

A small (2 to 3 inches), light greenish gray or tan toad with warty skin and dark spots. A light-colored stripe crosses the head and eyelids, and a light area usually occurs on each sacral hump and in the middle of the back.

Habitat Description:

RIVERS WITH SANDY BANKS, WILLOWS, COTTONWOODS, AND SYCAMORES; LOOSE, GRAVELLY AREAS OF STREAMS IN DRIER PARTS OF RANGE. SEMI-ARID REGIONS NEAR WASHES OR INTERMITTENT STREAMS, INCLUDING VALLEY-FOOTHILL AND DESERT RIPARIAN, DESERT WASH, ETC.

Hazard Class: AQ, FS

ASH-GRAY INDIAN PAINTBRUSH

Photo: Brousseau Collection

Castilleja sp.

Scientific Name: *CASTILLEJA CINEREA*

Federal Status: Threatened

Species Description:

Grayish stems 4 to 8 in tall, flower stalk greenish yellow to reddish-orange with distinctive yellowish hairs on the lower bracts. Distinguished from similar species by perennial nature, short hairs on stems and leaves,yellowish flowers.

Habitat Description:

ENDEMIC TO THE SAN BERNARDINO MOUNTAINS, IN CLAY OPENINGS; OFTEN IN MEADOW EDGES. 1800-2835M. PEBBLE PLAINS, UPPER MONTANE CONIFEROUS FOREST, MOJAVE DESERT SCRUB, MEADOWS, PINYON JUNIPER WOODLAND.

Hazard Class: PD

Species Descriptions

BIG BEAR VALLEY SANDWORT

Scientific Name: *ARENARIA URSINA*

Federal Status: Threatened

Species Description:

A low, tufted, perennial herb with 2-6" stems, thread-like leaves 1/2 inch long and white flowers with 1/8" petals appearing in May-August.

Photo: Brousseau Collection

Arenaria sp.

Habitat Description:

MESIC, ROCKY SITES. 1750-2900M. PEBBLE PLAIN, PINYON AND JUNIPER WOODLAND. ENDEMIC TO THE BIG BEAR AREA IN SAN BERNARDINO COUNTY.

Hazard Class: **PD**

CALIFORNIA DANDELION

Scientific Name: *TARAXACUM CALIFORNICUM*

Federal Status: Endangered

Species Description:

A thick-rooted perennial, with wavy, toothed leaves to 5" long by 1" wide, in basal rosettes, light yellow flowers appear in May to August, clustered in heads on leafless stalks. Leaves lighter green and flowers paler yellow than common dandelion.

Photo: Simon Quellen Field

Habitat Description:

MESIC MEADOWS, USUALLY FREE OF TALLER VEGETATION. 1620-2800M. MEADOWS AND SEEPS. ENDEMIC TO SAN BERNARDINO COUNTY.

Hazard Class: **PD**

Species Descriptions

CALIFORNIA RED-LEGGED FROG

Scientific Name: *RANA AURORA DRAYTONII*

Federal Status: Threatened

Species Description:

Up to 5 in. long, undersides of adults largely red; backs have black flecks and blotches, on a brown, gray, olive, or reddish background color; tadpoles range from 0.6 to 3.1 long, are dark brown and yellow with darker spots.

Photo: John Brode, CDFG

Habitat Description:

REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT. LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Hazard Class: AQ, FS

DELHI SANDS FLOWER-LOVING FLY

Scientific Name: *RHAPHIOMIDAS TERMINATUS ABDOMINALIS*

Federal Status: Endangered

Species Description:

A unique nectar-eating inch-long fly that mimics hummingbirds with its feeding habits and hovering flight.

Photo: Gregory R. Ballmer

Habitat Description:

REQUIRES FINE, SANDY SOILS, OFTEN WITH WHOLLY OR PARTLY CONSOLIDATED DUNES AND SPARSE VEGETATION. FOUND ONLY IN AREAS OF THE DELHI SANDS FORMATION IN SOUTHWESTERN SAN BERNARDINO & NORTHWESTERN RIVERSIDE COUNTIES.

Hazard Class: IN

Species Descriptions

DESERT TORTOISE

Scientific Name: *XEROBATES AGASSIZII*

Federal Status: Threatened

Species Description:

Adults range from 9.25 to 14.5 in. long, live 30 to 70 years, mostly in burrows, emerging to feed and mate in the late winter or early spring. Nesting occurs from May through July.
Hatching usually occurs in September or October.

Photo: Karen Wyatt

Habitat Description:

REQUIRE FRIABLE SOIL FOR BURROW AND NEST CONSTRUCTION. CREOSOTE BUSH HABITAT WITH LG ANNUAL WILDFLOWER BLOOMS PREFERRED. MOST COMMON IN DESERT SCRUB, DESERT WASH, AND JOSHUA TREE HABITATS; OCCURS IN ALMOST EVERY DESERT HABITAT.

Hazard Class: **FS**

LEAST BELL'S VIREO

Scientific Name: *VIREO BELLII PUSILLUS (NESTING)*

Federal Status: Endangered

Species Description:

A small migratory insectivorous bird, gray above, white-gray beneath, faint white eyebrow and wingbars, white border beneath eye (lower half of eye ring), dark eyeline and eye, thick bill with hooked upper mandible.

Photo: B. "Moose" Peterson

Habitat Description:

NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE. SUMMER RESIDENT OF SOUTHERN CALIF. INHABITS LOW RIPARIAN GROWTH IN VIC OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Hazard Class: **AV**

Species Descriptions

MARSH SANDWORT

Scientific Name: *ARENARIA PALUDICOLA*

Federal Status: Endangered

Species Description:

A perennial plant rooting at the lower joints, leaves more or less linear, 1.5 inches long by 0.1 inches wide and opposite in arrangement along the stem. The stem is hairless and flaccid, 1-2 mm thick.

Photo: Malcolm McLeod

Habitat Description:

GROWING UP THROUGH DENSE MATS OF TYPHA, JUNCUS, SCIRPUS, ETC. IN FRESHWATER MARSH. 10-170M. MARSHES AND SWAMPS. HIST. FROM SCATTERED COLL. IN CA AND IN WA; NOW KNOWN FROM ONE SITE IN SLO & APPAR. ALSO IN MEXICO.

Hazard Class: **PD**

RAZORBACK SUCKER

Scientific Name: *XYRAUCHEN TEXANUS*

Federal Status: Endangered

Species Description:

A large-river fish, one of the largest suckers in North America up to 14 pounds and 36 inches, distinguished from all other fishes by its abrupt, keel-edged, bony hump that rises on the back immediately behind the head.

Photo: John Rinne

Habitat Description:

ADAPTED FOR SWIMMING IN SWIFT CURRENTS BUT ALSO NEED QUIET WATERS. SPAWN IN AREAS OF SAND/GRAVEL/ROCKS IN SHALLOW WATER FOUND IN THE COLORADO RIVER BORDERING CALIFORNIA.

Hazard Class: **AQ**

Species Descriptions

SAN BERNARDINO BLUE GRASS

Scientific Name: *POA ATROPURPUREA*

Federal Status: Endangered

Species Description:

A tufted perennial with creeping rhizomes, erect, dense spike-like panicle (compound floral axis) 8 to 18 in high,flowers from early May to June, distinguished from Kentucky bluegrass in part by shorter inflorescences, contracted panicles.

Photo: "Weeds of the West"

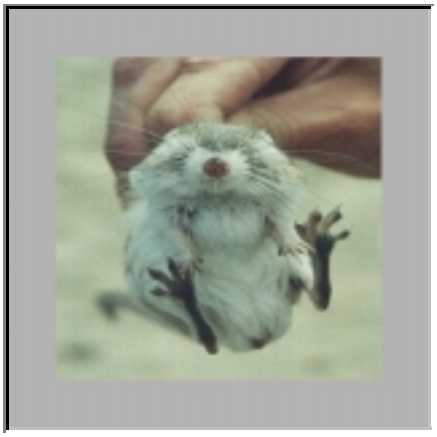
Poa sp.

Habitat Description:

MESIC MEADOWS OF OPEN PINE FORESTS ND GRASSY SLOPES, LOAMY ALLUVIAL TO SANDY LOAM SOIL. 1350-2455M. MEADOWS AND SEEPS.

Hazard Class: **PM**

SAN BERNARDINO MERRIAM'S KANGAROO RAT



Scientific Name: *DIPODOMYS MERRIAMI MERRIAMI*

Federal Status: Endangered

Species Description:

Small size (to 9 inches total), dark fur and four toes on each hind foot distinguish SBKR from other kangaroo rats. Fur is light yellow and dusky brown with dark brown tail stripes, foot pads and tail hairs.

Photo: Karen Kirtland, Kirtland Biol

Habitat Description:

ALLUVIAL FANS AND FLOOD PLAINS DOMINATED BY SAGE SCRUB AND CHAPARRAL WITH SANDY SOILS AND LOW VEGETATIVE COVER.

Hazard Class: **FS, KR**

Species Descriptions

SANTA ANA RIVER WOOLLYSTAR

Scientific Name: *ERIASTRUM DENSIFOLIUM SSP SANCTORUM*

Federal Status: Endangered

Species Description:

Perennial, erect or spreading, 2-6 lobed, densely wooly leaves, flowers white or blue.

Photo: V. Jigore

Habitat Description:

IN SANDY SOILS ON RIVER FLOODPLAINS OR TERRACED FLUVIAL DEPOSITS. 150-610M. COASTAL SCRUB , CHAPARRAL. FORMERLY KNOWN FROM ORANGE AND SAN BERNARDINO CO'S; NOW KNOWN FROM ONE EXTENDED POPULATION.

Hazard Class: **PD**

SANTA ANA SUCKER

Scientific Name: *CATOSTOMUS SANTAANAE*

Federal Status: Proposed Threatened

Species Description:

Less than 6.3 inches in length, silvery below, darker along the back with irregular blotches, and the membranes connecting the rays of the tail are pigmented.

Photo: Paul Barrett

Habitat Description:

HABITAT GENERALISTS, BUT PREFER SAND-RUBBLE-BOULDER BOTTOMS, COOL, CLEAR WATER, & ALGAE. ENDEMIC TO LOS ANGELES BASIN SOUTH COASTAL STREAMS.

Hazard Class: **AQ**

Species Descriptions

SLENDER-HORNED SPINEFLOWER

Scientific Name: *DODECAHEMA LEPTOCERAS*

Federal Status: Endangered

Species Description:

Annual, spreading, to 3 inches high, leaves basal, flowers white to pink.

Photo: SDSU

Habitat Description:

FLOOD DEPOSITED TERRACES AND WASHES; ASSOC INCLUDE ENCELIA, DALEA, LEPIDOSPARTUM, ETC. 200-760M. CHAPARRAL, COASTAL SCRUB (ALLUVIAL FAN SAGE SCRUB). HIST. FROM LAX, RIV, AND SBD COUNTIES; EXTIRP. FROM MUCH OF RANGE.

Hazard Class: **PD**

THREAD-LEAVED BRODIAEA

Scientific Name: *BRODIAEA FILIFOLIA*

Federal Status: Threatened

Species Description:

A perennial in the lilly family to 8 to 16 inches tall with several narrow leaves that are shorter than the leafless flower stalk, with violet flowers from May to June.

Photo: Brousseau Collection

Habitat Description:

USUALLY ASSOCIATED WITH ANNUAL GRASSLAND AND VERNAL POOLS; OFTEN SURR BY SHRUBLAND HABITATS. CLAY SOILS. 35-855M. CISMONTANE WOODLAND, COASTAL SCRUB, PLAYAS, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.

Hazard Class: **PM**

Species Descriptions

UNARMORED THREESPINE STICKLEBACK

Scientific Name: *GASTEROSTEUS ACULEATUS WILLIAMSONI*

Federal Status: Endangered

Species Description:

A small, spindle-shaped fish with three angular spines along its back, and skin rather than scales, to 2-1/3 inches long, typically drab-olive color changes to pale blue and scarlet in the males.

Photo: B. "Moose" Peterson/WRP

Habitat Description:

COOL (<24 C), CLEAR WATER WITH ABUNDANT VEGETATION. WEEDY POOLS, BACKWATERS, AND AMONG EMERGENT VEGETATION AT THE STREAM EDGE IN SMALL SOUTHERN CALIFORNIA STREAMS.

Hazard Class: AQ

WESTERN SNOWY PLOVER

Scientific Name: *CHARADRIUS ALEXANDRINUS NIVOSUS (NESTING)*

Federal Status: Threatened

Species Description:

A shore bird with compact body, short neck, large eyes, dark legs and beak, dark partial neckband, males with black forehead and breast markings, females with dark brown markings. Calls include a low pitched "krut" and "ku-wheet."

Photo: Don Baccus

Habitat Description:

REQUIRES SANDY, GRAVELLY OR FRIABLE SOIL SUBSTRATE FOR NESTING. SANDY BEACHES ON MARINE AND ESTUARINE SHORES, ALSO SALT POND LEVEES AND THE SHORES OF LARGE ALKALI LAKES.

Hazard Class: AV

Species Descriptions

YUMA CLAPPER RAIL

Photo: Phil Smith, CDFG

Scientific Name: *RALLUS LONGIROSTRIS YUMANENSIS*

Federal Status: Endangered

Species Description:

A chicken-shaped marsh bird with long downcurved beak, slate brown above, with light cinnamon underparts and barred flanks up to 16 inches long, feeds on crayfish, small fish and insects.

Habitat Description:

PREFERS STANDS OF CATTAILS AND TULES DISSECTED BY NARROW CHANNELS OF FLOWING WATER; PRINCIPLE FOOD IS CRAYFISH. NESTS IN FRESH-WATER MARSHES ALONG THE COLORADO RIVER AND ALONG THE SOUTH AND EAST ENDS OF THE SALTON SEA.

Hazard Class: **AQ, AV**

Section List - San Bernardino County

Sections	Species
01N01E: S25	Ash-gray Indian Paintbrush
01N01E: S26	Ash-gray Indian Paintbrush, California Dandelion
01N01E: S35	California Dandelion
01N01E: S36	Ash-gray Indian Paintbrush, California Dandelion
01N01E: S7,12-13,22	California Dandelion
01N01W: S12-13	California Dandelion
01N02E: S1	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
01N02E: S12	Ash-gray Indian Paintbrush, California Dandelion, San Bernardino Blue Grass
01N02E: S18	California Dandelion
01N02E: S2	Ash-gray Indian Paintbrush
01N02E: S25	Big Bear Valley Sandwort
01N02E: S27,33-34	California Dandelion
01N02E: S3-4	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, San Bernardino Blue Grass
01N02E: S36	Big Bear Valley Sandwort
01N02E: S5-6	Ash-gray Indian Paintbrush
01N02E: S7	California Dandelion
01N02E: S9-10	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
01N03E: S29-32	Big Bear Valley Sandwort
01N03E: S6-7,15-17,21	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
01N03W: S10	California Red-legged Frog, Santa Ana Sucker
01N04W: S11	Thread-leaved Brodiaea
01N04W: S18	Santa Ana River Woollystar
01N04W: S31	Marsh Sandwort, Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01N04W: S32-34	Marsh Sandwort
01N04W: S7	Santa Ana River Woollystar
01N05W: S11-14	Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01N05W: S5-8	Slender-horned Spineflower, San Bernardino Merriam's Kangaroo Rat
01N06E: S1-4,10-15,22-28,33-36	Desert Tortoise
01N07E: S1-36	Desert Tortoise
01N08E: S1-36	Desert Tortoise
01N09E: S5-9,16-20,29-31	Desert Tortoise
01N10E: S35-36	Desert Tortoise
01N11E: S31-32	Desert Tortoise
01N13E: S1-6,8-16,22-26	Desert Tortoise
01N14E: S6-8,16-21,28-32	Desert Tortoise
01N22E: S1-36	Desert Tortoise
01N23E: S1-36	Desert Tortoise

Section List - San Bernardino County

Sections	Species
01N24E: S1-11,14-22,27-34	Desert Tortoise
01N25E: S31-33	Yuma Clapper Rail
01N26E: S16	Yuma Clapper Rail
01N26E: S17-18	Razorback Sucker, Yuma Clapper Rail
01S02E: S1	Big Bear Valley Sandwort
01S02W: S4	Santa Ana River Woollystar
01S02W: S7	Santa Ana River Woollystar, Slender-horned Spineflower, San Bernardino Merriam's Kangaroo Rat
01S02W: S8, 16-18,20-21	Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S03E: S5-6	Big Bear Valley Sandwort
01S03W: S1-4	Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S03W: S10-12	Santa Ana River Woollystar, Slender-horned Spineflower, San Bernardino Merriam's Kangaroo Rat
01S03W: S13-14	Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S03W: S15	Santa Ana River Woollystar, Slender-horned Spineflower, San Bernardino Merriam's Kangaroo Rat
01S03W: S16-17	Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S03W: S18	Marsh Sandwort, Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S03W: S19,30-31	Marsh Sandwort
01S03W: S7	Marsh Sandwort, Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S03W: S8-9	Santa Ana River Woollystar, San Bernardino Merriam's Kangaroo Rat
01S04E: S13-14,23-26	Least Bell's Vireo
01S04W: S1-5	Marsh Sandwort
01S04W: S29	Marsh Sandwort, Santa Ana River Woollystar
01S04W: S30	Delhi Sands Flower-loving Fly, Marsh Sandwort
01S04W: S31-36	Marsh Sandwort
01S04W: S6	Marsh Sandwort, Santa Ana River Woollystar
01S04W: S7-25	Marsh Sandwort
01S05E: S18-19,30	Least Bell's Vireo
01S05W: S1-2,10-12	Marsh Sandwort
01S05W: S13	Delhi Sands Flower-loving Fly, Marsh Sandwort
01S05W: S14-15,22-23	Marsh Sandwort
01S05W: S24-26	Delhi Sands Flower-loving Fly, Marsh Sandwort
01S05W: S27	Marsh Sandwort
01S05W: S35	Delhi Sands Flower-loving Fly, Marsh Sandwort
01S05W: S36	Marsh Sandwort, Santa Ana Sucker
01S06E: S1-4,9-16,21-24	Desert Tortoise

Section List - San Bernardino County

Sections	Species
01S07E: S4-8,17-20	Desert Tortoise
01S08E: S21	Least Bell's Vireo
01S08E: S3-5	Desert Tortoise
01S10E: S1-2,11-13,24	Desert Tortoise
01S11E: S4-11,13-30,32-36	Desert Tortoise
01S12E: S17-36	Desert Tortoise
01S13E: S19-22,27-34	Desert Tortoise
01S17E: S19-20	Desert Tortoise
01S22E: S1-18	Desert Tortoise
01S23E: S1-18	Desert Tortoise
01S24E: S11,14	Razorback Sucker
01S24E: S17-18	Desert Tortoise
01S24E: S4-8	Desert Tortoise
01S25E: S4-6	Yuma Clapper Rail
02N01E: S1	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
02N01E: S11	Ash-gray Indian Paintbrush, California Dandelion, San Bernardino Blue Grass
02N01E: S12	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01E: S13	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
02N01E: S14-15	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, San Bernardino Blue Grass
02N01E: S16-17	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01E: S18	California Dandelion
02N01E: S19-21	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01E: S2-3	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion
02N01E: S22	California Dandelion, San Bernardino Blue Grass
02N01E: S23	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01E: S24-25	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion
02N01E: S26	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01E: S27	California Dandelion, San Bernardino Blue Grass
02N01E: S30	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01E: S4-6	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01W: S1	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass

Section List - San Bernardino County

Sections	Species
02N01W: S13	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
02N01W: S23-25	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N01W: S34-35	California Dandelion, San Bernardino Blue Grass
02N01W: S36	California Dandelion
02N02E: S16-17	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N02E: S18	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass, Unarmored Threespine Stickleback
02N02E: S19	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion
02N02E: S20-21	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N02E: S24-25	Big Bear Valley Sandwort
02N02E: S27-29	Ash-gray Indian Paintbrush
02N02E: S30	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion
02N02E: S32	California Dandelion
02N02E: S33-34	Ash-gray Indian Paintbrush
02N02E: S36	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
02N02E: S5	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
02N02E: S6	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
02N02E: S7	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass, Unarmored Threespine Stickleback
02N02W: S25	Ash-gray Indian Paintbrush
02N03E: S30	Big Bear Valley Sandwort
02N03E: S31	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
02N05W: S33	Slender-horned Spineflower, San Bernardino Merriam's Kangaroo Rat
02N06E: S1-2,10-16,21-28,33-36	Desert Tortoise
02N06W: S12	Least Bell's Vireo
02N07E: S1-36	Desert Tortoise
02N08E: S2-36	Desert Tortoise
02N09E: S1-6,12-13,30-32	Desert Tortoise
02N10E: S1-12,17-18	Desert Tortoise
02N11E: S1-2,5-6,11-12	Desert Tortoise
02N12E: S1-18,23-25	Desert Tortoise
02N13E: S5-8,17-21,27-35	Desert Tortoise
02N22E: S1-36	Desert Tortoise
02N23E: S1-36	Desert Tortoise
02N24E: S1-36	Desert Tortoise

Section List - San Bernardino County

Sections	Species
02N27E: S3-4	Yuma Clapper Rail
02S03W: S6	Marsh Sandwort
02S04W: S1-6	Marsh Sandwort
02S05W: S1	Marsh Sandwort, Santa Ana River Woollystar
02S05W: S2-3	Marsh Sandwort
02S07W: S31	Least Bell's Vireo
03N01E: S22-24	Big Bear Valley Sandwort
03N01E: S25	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
03N01E: S26-27	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion
03N01E: S29,31-33	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
03N01E: S34-36	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion
03N01W: S25,36	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
03N02E: S19,30	Big Bear Valley Sandwort
03N02E: S31	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort, California Dandelion, San Bernardino Blue Grass
03N02E: S32	Ash-gray Indian Paintbrush, Big Bear Valley Sandwort
03N03E: S8-11,13-17,20-24,27	Desert Tortoise
03N03W: S18	Arroyo Toad
03N04W: S13-15,22-27	California Red-legged Frog
03N05E: S1-2,12	Desert Tortoise
03N06E: S2-11,36	Desert Tortoise
03N07E: S8-10,15-17,21-22,25-29,31-36	Desert Tortoise
03N08E: S2-4,9-11,14-15,22-23,28-35	Desert Tortoise
03N09E: S24-36	Desert Tortoise
03N10E: S14-17,19-36	Desert Tortoise
03N11E: S2-3,10-11,15-17,20-23,25-28,30-32,34-36	Desert Tortoise
03N12E: S3-5,8-10,13-17,21-29,31-36	Desert Tortoise
03N13E: S17-21,28-32	Desert Tortoise
03N18E: S1-5,10-12	Desert Tortoise
03N19E: S1-12	Desert Tortoise
03N20E: S5-6	Desert Tortoise
03N21E: S1	Desert Tortoise

Section List - San Bernardino County

Sections	Species
03N22E: S1-36	Desert Tortoise
03N23E: S1-36	Desert Tortoise
03N24E: S2-11,14-36	Desert Tortoise
03N27E: S33-34	Yuma Clapper Rail
03S07W: S4-9	Least Bell's Vireo
04N01E: S1	Desert Tortoise
04N01W: S4-5	Desert Tortoise
04N02E: S6,20-23,26-29,32-35	Desert Tortoise
04N03E: S1-4,9-13,22-27,35-36	Desert Tortoise
04N04E: S3-10,17-19,30-31	Desert Tortoise
04N05E: S1-3,10-15,22-26,35-36	Desert Tortoise
04N06E: S6,18-20,26-35	Desert Tortoise
04N07E: S19-21,28-33	Desert Tortoise
04N08E: S20-21,27-29,32-35	Desert Tortoise
04N09E: S1-2,12	Desert Tortoise
04N10E: S6	Desert Tortoise
04N18E: S1-3,9-16,19-36	Desert Tortoise
04N19E: S1-36	Desert Tortoise
04N20E: S1-24,27-33	Desert Tortoise
04N21E: S1-18,20-27,35-36	Desert Tortoise
04N22E: S1-36	Desert Tortoise
04N23E: S1-36	Desert Tortoise
04N24E: S5-9,16-22,27-34	Desert Tortoise
05N01E: S1-2,11-13,23-26,35-36	Desert Tortoise
05N01W: S9-11,14-17,20-23,27-33	Desert Tortoise
05N02E: S1-32	Desert Tortoise
05N03E: S1-2,11-15,22-23,26-28,33-34	Desert Tortoise
05N04E: S1-18,20-22,27-29,32-34	Desert Tortoise
05N04W: S3-4,9-11,14-15,22-25	California Red-legged Frog
05N05E: S2-10,24-25,35-36	Desert Tortoise
05N06E: S17-21,28-33	Desert Tortoise
05N06W: S1-11,18	Desert Tortoise
05N07E: S12-13,24-25,36	Desert Tortoise
05N07W: S1-3,11-13	Desert Tortoise
05N08E: S7,18-20,29-31	Desert Tortoise
05N09E: S35-36	Desert Tortoise
05N10E: S31	Desert Tortoise

Section List - San Bernardino County

Sections	Species
05N17E: S1	Desert Tortoise
05N18E: S1-17,22-26,34-36	Desert Tortoise
05N19E: S1-36	Desert Tortoise
05N20E: S1-36	Desert Tortoise
05N21E: S1-36	Desert Tortoise
05N22E: S1-36	Desert Tortoise
05N23E: S4-10,14-36	Desert Tortoise
05N24E: S31-32	Desert Tortoise
06N01E: S11-15,22-27,34-36	Desert Tortoise
06N02E: S7-8,16-22,26-36	Desert Tortoise
06N03E: S3-4,9-16,23-26,35-36	Desert Tortoise
06N03W: S4-6	Desert Tortoise
06N04E: S7-36	Desert Tortoise
06N04W: S1-11	Desert Tortoise
06N04W: S32-34	California Red-legged Frog
06N05E: S8-9,15-23,26-35	Desert Tortoise
06N05W: S1-12,15-21,29-31	Desert Tortoise
06N06W: S1-36	Desert Tortoise
06N07E: S23-26,35-36	Desert Tortoise
06N07W: S13,23-27,34-36	Desert Tortoise
06N08E: S19-20,28-32	Desert Tortoise
06N10E: S1-5	Desert Tortoise
06N16E: S1-3,10-14,24	Desert Tortoise
06N17E: S1-29,35-36	Desert Tortoise
06N18E: S1-36	Desert Tortoise
06N19E: S1-36	Desert Tortoise
06N20E: S1-36	Desert Tortoise
06N21E: S1-36	Desert Tortoise
06N22E: S1-36	Desert Tortoise
06N23E: S6-7,17-20,29-33	Desert Tortoise
06N24E: S2-3,13-14,23-26,36	Razorback Sucker, Yuma Clapper Rail
06N25E: S31	Razorback Sucker, Yuma Clapper Rail
07N02E: S25	Desert Tortoise
07N02W: S2-9,17-18	Desert Tortoise
07N03E: S19-20,29-32	Desert Tortoise
07N03W: S1-35	Desert Tortoise
07N04W: S1-36	Desert Tortoise
07N05E: S3-11,14-23,26-29	Desert Tortoise

Section List - San Bernardino County

Sections	Species
07N05W: S1-36	Desert Tortoise
07N06W: S1-36	Desert Tortoise
07N07W: S1-28,36	Desert Tortoise
07N10E: S11-15,21-28,33-36	Desert Tortoise
07N11E: S7-8,17-20,30-31	Desert Tortoise
07N12E: S1-4,7-23,28-30	Desert Tortoise
07N13E: S5-7	Desert Tortoise
07N14E: S1-5,8-11	Desert Tortoise
07N16E: S1-5,8-17,20-28,33-36	Desert Tortoise
07N17E: S1-36	Desert Tortoise
07N18E: S1-36	Desert Tortoise
07N19E: S1-36	Desert Tortoise
07N20E: S1-36	Desert Tortoise
07N21E: S1-36	Desert Tortoise
07N22E: S3-10,14-36	Desert Tortoise
07N23E: S30-31	Desert Tortoise
07N24E: S9,15-16,21-22,34	Razorback Sucker, Yuma Clapper Rail
08N01E: S1-27,30	Desert Tortoise
08N01W: S1-34	Desert Tortoise
08N02W: S1-36	Desert Tortoise
08N03W: S1-36	Desert Tortoise
08N04W: S1-36	Desert Tortoise
08N05W: S1-36	Desert Tortoise
08N06W: S1-36	Desert Tortoise
08N07W: S1-36	Desert Tortoise
08N12E: S24-26,33-36	Desert Tortoise
08N13E: S19-20,29-32	Desert Tortoise
08N14E: S1-5,8-17,20-29,32-36	Desert Tortoise
08N15E: S1-21,29-31	Desert Tortoise
08N16E: S1-18,20-29,32-36	Desert Tortoise
08N17E: S1-36	Desert Tortoise
08N18E: S1-36	Desert Tortoise
08N19E: S1-36	Desert Tortoise
08N20E: S6-9,14-36	Desert Tortoise
08N21E: S19-23,25-36	Desert Tortoise
08N22E: S30-33	Desert Tortoise
09N01E: S2-6,21-22,26-28,31-35	Desert Tortoise
09N01W: S1-2,19-21,26-36	Desert Tortoise

Section List - San Bernardino County

Sections	Species
09N02W: S7-8,14-36	Desert Tortoise
09N03W: S2-36	Desert Tortoise
09N04W: S1-36	Desert Tortoise
09N05W: S1-36	Desert Tortoise
09N06W: S1-4,9-16,21-28,33-36	Desert Tortoise
09N07W: S35-36	Desert Tortoise
09N12E: S1-3,9-15	Desert Tortoise
09N13E: S6-7,18	Desert Tortoise
09N14E: S1,11-15,21-28,33-36	Desert Tortoise
09N15E: S1-36	Desert Tortoise
09N16E: S1-36	Desert Tortoise
09N17E: S1-36	Desert Tortoise
09N18E: S1-36	Desert Tortoise
09N19E: S1-36	Desert Tortoise
09N20E: S1-11,15-21,29-31	Desert Tortoise
09N22E: S13,24	Razorback Sucker
09N23E: S19-20,28-30	Razorback Sucker
09N23E: S32-33	Razorback Sucker, Yuma Clapper Rail
10N01E: S1-36	Desert Tortoise
10N01W: S1-36	Desert Tortoise
10N02E: S1-24,27-33	Desert Tortoise
10N02W: S1-30,33-36	Desert Tortoise
10N03E: S4-9,17-18	Desert Tortoise
10N03W: S1-32	Desert Tortoise
10N04W: S1-36	Desert Tortoise
10N05W: S1-36	Desert Tortoise
10N06W: S1-6,8-16,20-29,32-36	Desert Tortoise
10N07W: S1-2,4	Desert Tortoise
10N12E: S23-27,34-36	Desert Tortoise
10N13E: S30-31	Desert Tortoise
10N15E: S13,22-29,31-36	Desert Tortoise
10N16E: S1,9-36	Desert Tortoise
10N17E: S1-36	Desert Tortoise
10N18E: S1-36	Desert Tortoise
10N19E: S1-36	Desert Tortoise
10N20E: S1-36	Desert Tortoise
10N21E: S3-10,15-21,29-31	Desert Tortoise
11N01E: S1-36	Desert Tortoise

Section List - San Bernardino County

Sections	Species
11N01W: S1-36	Desert Tortoise
11N02E: S5-8,16-36	Desert Tortoise
11N02W: S1-36	Desert Tortoise
11N03E: S29-33	Desert Tortoise
11N03W: S1-36	Desert Tortoise
11N04W: S1-15	Desert Tortoise
11N04W: S16-17	Desert Tortoise, Western Snowy Plover
11N04W: S18-19	Desert Tortoise
11N04W: S20-22	Desert Tortoise, Western Snowy Plover
11N04W: S23-26	Desert Tortoise
11N04W: S27-28	Desert Tortoise, Western Snowy Plover, Yuma Clapper Rail
11N04W: S29	Desert Tortoise, Western Snowy Plover
11N04W: S30-32	Desert Tortoise
11N04W: S33-34	Desert Tortoise, Yuma Clapper Rail
11N04W: S35-36	Desert Tortoise
11N05W: S1-36	Desert Tortoise
11N06W: S1-36	Desert Tortoise
11N07W: S1-4,9-16,21-28,33-36	Desert Tortoise
11N12E: S1-3,11-12	Desert Tortoise
11N13E: S1-12,14-16	Desert Tortoise
11N14E: S4-8	Desert Tortoise
11N16E: S35-36	Desert Tortoise
11N17E: S13-15,20-36	Desert Tortoise
11N18E: S1,7-36	Desert Tortoise
11N19E: S1-36	Desert Tortoise
11N20E: S1-36	Desert Tortoise
11N21E: S6-7,18-19,30	Desert Tortoise
12N01E: S1-2,12-13,23-26,31-32,34-36	Desert Tortoise
12N01W: S31-36	Desert Tortoise
12N02E: S1-12,14-23,27-33	Desert Tortoise
12N02W: S31-36	Desert Tortoise
12N03W: S31-36	Desert Tortoise
12N04W: S31-36	Desert Tortoise
12N05W: S31-36	Desert Tortoise
12N06W: S31-36	Desert Tortoise
12N07W: S33-36	Desert Tortoise
12N10E: S1,12	Desert Tortoise

Section List - San Bernardino County

Sections	Species
12N11E: S1-17,22-24	Desert Tortoise
12N12E: S1-29,33-36	Desert Tortoise
12N13E: S1-36	Desert Tortoise
12N14E: S2-11,14-22,27-33	Desert Tortoise
12N19E: S1,12-14,22-28,32-36	Desert Tortoise
12N20E: S3-11,13-36	Desert Tortoise
12N21E: S19,30-31	Desert Tortoise
13N01E: S13-15,22-27,34-36	Desert Tortoise
13N02E: S18-23,26-35	Desert Tortoise
13N10E: S22-27,35-36	Desert Tortoise
13N11E: S19,26-36	Desert Tortoise
13N12E: S31-36	Desert Tortoise
13N13E: S25-28,31-36	Desert Tortoise
13N14E: S19-22,26-35	Desert Tortoise
13N19E: S36	Desert Tortoise
13N20E: S30-33	Desert Tortoise
14N01E: S1-12	Desert Tortoise
14N02E: S6	Desert Tortoise
14N10E: S1-5,9-15	Desert Tortoise
14N11E: S4-8,18	Desert Tortoise
14N14E: S1-4,9-16,21-27,35-36	Desert Tortoise
14N15E: S1-23,27-32	Desert Tortoise
14N16E: S6-7	Desert Tortoise
15N01E: S1-4,8-36	Desert Tortoise
15N02E: S5-8,17-20,30-31	Desert Tortoise
15N09E: S13,24	Desert Tortoise
15N10E: S1-4,7-36	Desert Tortoise
15N11E: S1-23,26-34	Desert Tortoise
15N12E: S6-7	Desert Tortoise
15N14E: S1-5,10-15,23-27,33-36	Desert Tortoise
15N15E: S1-36	Desert Tortoise
15N16E: S1-12,14-22,28-33	Desert Tortoise
15N17E: S6	Desert Tortoise
16N01E: S23-27,33-36	Desert Tortoise
16N02E: S19-20,29-32	Desert Tortoise
16N10E: S24-26,33-36	Desert Tortoise
16N11E: S1-5,9-36	Desert Tortoise
16N12E: S2-11,14-22,28-32	Desert Tortoise

Section List - San Bernardino County

Sections	Species
16N13E: S1-2,12-13,24-25	Desert Tortoise
16N14E: S1-36	Desert Tortoise
16N15E: S1-4,6-7,9-15,17-36	Desert Tortoise
16N16E: S6-8,16-22,26-36	Desert Tortoise
16N17E: S31	Desert Tortoise
17N11E: S1-3,9-17,20-29,32-36	Desert Tortoise
17N12E: S5-9,16-22,27-34	Desert Tortoise
17N13E: S1,11-14,23-26,35-36	Desert Tortoise
17N14E: S1-3,7-36	Desert Tortoise
17N15E: S6-7,16-18,20-22,26-29,31-36	Desert Tortoise
18N11E: S24-26,35-36	Desert Tortoise
18N12E: S19,29-32	Desert Tortoise
18N14E: S36	Desert Tortoise
20N09E: S27-30	Desert Tortoise
27S41E: S25,35-36	Desert Tortoise
27S42E: S11-16,20-36	Desert Tortoise
27S43E: S3-24,26-34	Desert Tortoise
28S41E: S1-2,10-15,22-26	Desert Tortoise
28S42E: S1-24,29-30	Desert Tortoise
28S43E: S4-9,16-19	Desert Tortoise
29S40E: S25	Desert Tortoise
29S41E: S7,17-22,25-36	Desert Tortoise
29S42E: S25-36	Desert Tortoise
29S43E: S30-34	Desert Tortoise
29S47E: S34	Desert Tortoise
30S41E: S1-36	Desert Tortoise
30S42E: S1-36	Desert Tortoise
30S43E: S2-36	Desert Tortoise
30S44E: S18-20,28-34	Desert Tortoise
30S45E: S36	Desert Tortoise
30S46E: S31-34	Desert Tortoise
30S47E: S3	Desert Tortoise
31S40E: S1,12-13,24	Desert Tortoise
31S41E: S1-36	Desert Tortoise
31S42E: S1-36	Desert Tortoise
31S43E: S1-36	Desert Tortoise
31S44E: S1-36	Desert Tortoise

Section List - San Bernardino County

Sections	Species
31S45E: S1-4,7-36	Desert Tortoise
31S46E: S2-36	Desert Tortoise
31S47E: S18-19,30-31	Desert Tortoise
32S41E: S1-36	Desert Tortoise
32S42E: S1-36	Desert Tortoise
32S43E: S1-36	Desert Tortoise
32S44E: S1-36	Desert Tortoise
32S45E: S1-36	Desert Tortoise
32S46E: S1-36	Desert Tortoise
32S47E: S6-8,17-21,28-34	Desert Tortoise